TRAFFIC STUDY

For

Club Estates
(TM 5499)

Prepared For: The County of San Diego

Submitted To:
The Law Offices of Cynthia L. Eldred
2481 Congress Street
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Prepared By:
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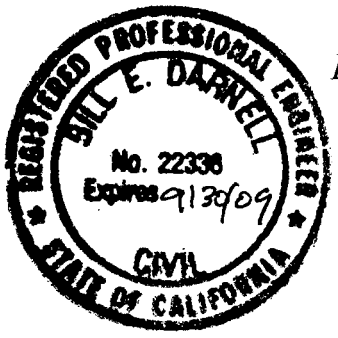

Signature: Bill E Darnell
Date Signed: 9/11/08

Revised September 11, 2008
Revised: June 11, 2008
Revised: April 11, 2008
Revised: December 17, 2007
Revised: May 10, 2007
Original: May 2, 2005

Darnell & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

September 11, 2008

Cynthia Eldred
The Law Office of Cynthia L. Eldred
2481 Congress Street
San Diego, CA 92110

D&A Ref. No.: 050310

Subject: Revised Traffic Study For Club Estates (TM 5499) – A 48-Acre Subdivision Located in the Pauma Valley Area of San Diego County.

Dear Ms. Eldred:

In accordance with your authorization, Darnell & Associates, Inc. (D&A) has revised our June 11, 2008 traffic study for Club Estates (TM 5499) to respond to the County of San Diego's August 3, 2008 comment letter and our meetings with the County on August 4, 13, and 18, 2008.

The proposed project is located on 48 acres on the south side of State Route 76 (Pala Road) between Cole Grade Road and Pauma Valley Drive in the Pauma Valley area of San Diego County. This report analyzes the traffic impacts associated with the proposed project on the adjacent roadways under existing and near term cumulative conditions.

Please see D&A's written responses to the County's Comment letter which is provided directly behind this letter and in Appendix J for a description of how each of the County's comments was responded to and where the modifications in the report can be found.

If you have any questions, please feel free to contact the office.

Sincerely,

DARNELL & ASSOCIATES, INC.

Bill E. Darnell, P.E.
Firm Principal
RCE 22338

Date Signed: 9/11/08

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Darnell & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

MEMORANDUM

DATE: August 12, 2008

TO: Cynthia Eldred, Law Offices of Cynthia L. Eldred

FROM: Bill E. Darnell, P.E.

D&A Ref. No: 050310

RE: Club Estates (TM 5499) Traffic Study – Responses to the County of San Diego's August 3, 2008 Comment Letter

Darnell & Associates, Inc. (D&A) has reviewed the County of San Diego comments dated August 3, 2008. The following summarizes our responses to each of the comments. These responses have been incorporated into our August 2008 iteration of the traffic study.

Comment 1: The traffic study has provided a "with" and "without" GPA/tribal gaming project scenarios for the project's cumulative analysis, which was suggested in DPW's previous comments. However, based on recent discussions with County Counsel and DPLU Environmental/CEQA staff it has been clarified that each proposed development project must address the cumulative scenario effects of "all known" projects, which would include currently proposed projects such as GPA projects, casino expansions, and the Palomar College campus. It is acknowledged that some of the proposed GPA project would increase potential land use development beyond what would be allowed under the existing and/or proposed County General Plan. It is also acknowledged that the casino expansion and Palomar College projects are not within the County CEQA lead agency jurisdiction. Regardless of the aforementioned facts, based on staff's current understanding of CEQA requirements, the TM 5499 traffic study must be revised to specifically address the impacts and mitigation measures based on the "all known projects cumulative scenario".

Response 1: The "without" GPA/tribal gaming project scenario has been removed from the August 2008 iteration of the traffic study.

Comment 2: The traffic study should provide recommended mitigation measures to address the project's cumulative impacts to the segments of SR-76 and Cole Grade Road not covered by the TIF program in order to adequately address the project's impacts with the GPA project/all known project cumulative analysis scenario. Mitigation measures could include physical road improvements.

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Response 2: The traffic study has been revised to identify that although the project is not a cumulatively considerable portion of the cumulative impacts to SR-76 it will participate in the project proposes to make a fair-share contribution towards the "intersection betterment" and signal fees in accordance with the County of San Diego Board of Supervisors Policy J-25 towards the following intersections: Pala Road (SR-76)/Pala Temecula Road; Pala Road (SR-76)/Pauma Reservation Road; Pala Road (SR-76)/Cole Grade Road; Pala Road (SR-76)/Pauma Valley Drive; and Pala Road (SR-76)/Valley Center Road.

To mitigate the project's share of the cumulative impacts to the segment of Cole Grade Road not covered by the TIF, it proposes to pay "intersection betterment" and signalization fees in accordance with the County of San Diego Board of Supervisors Policy J-25 towards the following intersections: Cole Grade Road/Miller Road and Cole Grade Road/Miller Way.

Please see Section VI, page 38 of the strike-out/underline version and pages 36 and 37 of the clean version of the August 2008 iteration of the traffic study for more details on the proposed mitigation of the cumulative impacts.

Comment 3: The traffic study should identify in the summary tables and/or in map figures the current traffic control at each intersection, whether stop-controlled, or signalized or neither. The traffic study should use the appropriate County's significance criteria for analyzing stop control and signalized intersections as specified in the County's traffic impact guidelines.

Response 3: Figure 3, Table 3, Table 9, and Table 11 have been revised to identify the existing traffic control at each of the analyzed intersections.

Comment 4: On page 37, the traffic study should delete item #1 from the third cumulative impacts bullet which discusses an additional TIF payment for added segments of SR-76 not covered by the current TIF program. The County will not accept an additional TIF payment for roadway facilities that are not identified as TIF roadway facilities in the current TIF program.

Response 4: This bullet has been completely deleted/revised in the August 2008 iteration of the traffic study. Please see response 2 for the revised mitigation for SR-76.

Comment 5: For Item #2 from the third cumulative impacts bullet on page 37, the traffic study should identify specific road improvements proposed by the project in order to mitigate its cumulative impacts to SR-76.

Response 5: This bullet has been completely deleted/revised in the August 2008 iteration of the traffic study. Please see response 2 for the revised mitigation for SR-76.

Comment 6: The project applicant/consultant should coordinate with Caltrans and DPW Land Development staffs to determine if the proposed signal fee contributions are an adequate mitigation measures for the project's cumulative impacts to the SR-76 intersections listed on page 37.

Response 6: The project applicant has met with County staff and has obtained their initial concurrence on the proposed mitigation measures recommended in Section VI of the August 2008 iteration of the traffic study.

Comment 7: The traffic study should provide analysis to demonstrate the effectiveness of the project's recommended mitigation measures in addressing the project's significant impacts.

Response 7: The recommended mitigation measures will provide the funding needed to improve the intersections along SR-76 and Cole Grade Road. Improvement in the operation of the intersections will allow the traffic along the roadway segments to improve as well.

Comment 8: For each intersection or segment to be improved as part of the proposed project mitigation, the traffic study should provide preliminary striping, and pavement widening plans including existing topography and proposed grading and drainage improvements. The plans should show existing right-of-way and indicate and right-of-way and/or permission of off-sit grading and/or acquisitions needed. The applicant/engineer should provide evidence of ability to acquire these without obtaining County eminent domain assistance.

Response 8: Since the proposed mitigation only consists of the payment of fees, preliminary striping and pavement widening plans are not required.

Please feel free to contact our office if you have any questions regarding the above responses.

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EXECUTIVE SUMMARY

The applicant proposes to develop Club Estates, a 31-unit subdivision consisting of 30 new single-family estate dwelling units and one (1) existing single-family estate home. The proposed project is located on 48 acres on the south side of State Route 76 (Pala Road) between Cole Grade Road and Pauma Valley Drive in the Pauma Valley area of San Diego County. The project proposes to provide one primary access off State Route 76. A secondary access (for emergency and recreational purposes only) will be provided to State Route 76 at Pauma Valley Drive via Luiseno Circle Drive.

This report will show that the proposed project is estimated to generate a total of 360 new average daily trips, 29 new morning peak hour trips, and 36 new afternoon peak hour trips.

This report concludes that the proposed project does not have a significant direct impact on any of the traffic infrastructure (roadway segments or intersections) within the study area. The proposed project, when considered with other projects in process or known to be in process would be part of a cumulatively considerable impact on the segments of Valley Center Road west of Cole Grade Road and Cole Grade Road between Cool Valley Road and Valley Center Road. The proposed project will mitigate for those impacts as summarized in Section VI.

SECTION I – INTRODUCTION

PROJECT DESCRIPTION

The applicant proposes to develop Club Estates, a 31-unit subdivision consisting of 30 new single-family estate dwelling units and one (1) existing single-family estate home. The proposed project is located on 48 acres on the south side of State Route 76 (Pala Road) between Cole Grade Road and Pauma Valley Drive in the Pauma Valley area of San Diego County. The project proposes to provide one primary access off State Route 76.

A secondary access (for emergency and recreational purposes only) will be provided to State Route 76 at Pauma Valley Drive via Luiseno Circle Drive. The Pauma Valley Country Club has granted an easement to the project applicant for its use and the use of its future homeowners. The security gate will be operated by the Pauma Valley Community Services District. The road from the project boundary to Luiseno Circle will be operated and maintained either by the project's homeowners association or by the Pauma Valley Roadway Association, which operates and maintains many of the private roads already constructed within The Club's boundaries.

Figure 1 shows the regional location of the project. The preliminary site plan for the project is illustrated in Figure 2.

CONGESTION MANAGEMENT PROGRAM

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation, and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. The original CMP for the San Diego region was adopted in 1991 and has been updated periodically as an element of the Regional Transportation Plan (RTP). One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants, and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process. Authority for local land use decisions including project approvals and any required mitigation remains the responsibility of local jurisdictions.

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the threshold is 2,400 average daily trips (ADT) or 200 peak hour trips. The proposed project will generate 360 average daily trips, 29 AM peak hour trips, and 36 PM peak hour trips (see Section III), and is therefore, not subject to CMP guidelines for traffic impact studies.

SCENARIOS STUDIED

The traffic scenarios analyzed in this report are identified as follows:

Existing Conditions refers to that condition which exists on the ground today (2007), including existing traffic and existing lane configurations at roadway segments.

Existing Plus Project Conditions refers to that condition which includes the project traffic added onto existing volumes.

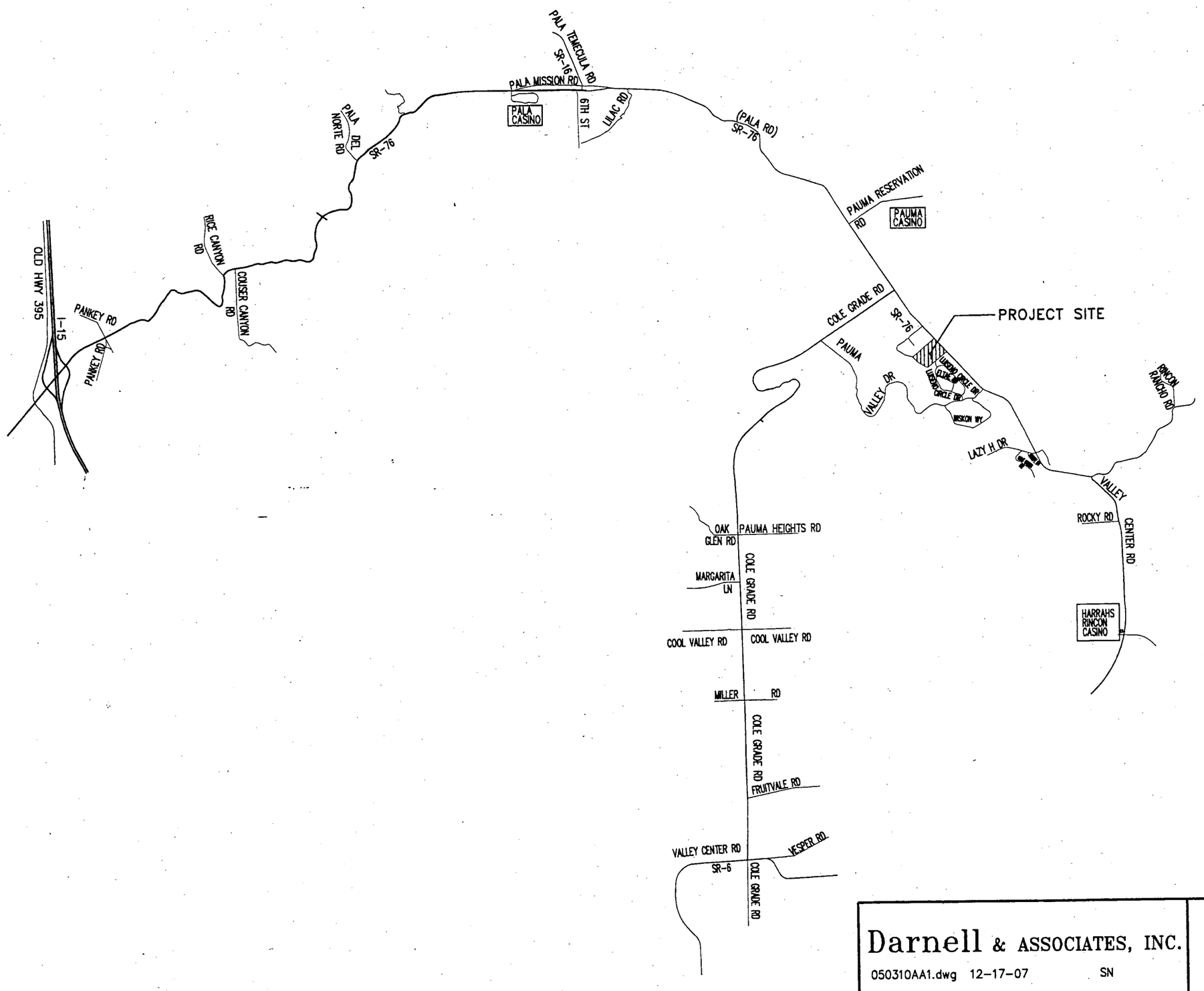

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FIGURE 1
VICINITY MAP

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FIGURE 2
SITE PLAN

Cumulative (2009) Without Project Conditions refers to that conditions which includes the existing traffic plus an added ambient growth of 2.9 percent (2.9%) per year for two (2) years plus the traffic generated by the following pending developments: Meadowood (GPA 04-02, SPA 04-01, TM 5354) Warner Ranch (TM 5508), Campus Park West (GPA 05-003, SPA 05-001, TM 5424, REZ 05-005, S 05-014), Campus Park (GPA 03-04, SP 03-04, R03-014, TM 5338), Palomar Community College, Pala Casino Expansion, Pauma Casino Expansion, and the 48-acre parcel adjacent to the Club Estates project site. The ambient growth factor was based on the average growth per year that occurred along the study segments between the existing traffic volumes and the future 2030 volumes per the County's General Plan 2020 (GP2020) forecast. Please see Section IV for a more detail discussion on how the cumulative conditions were derived.

Cumulative (2009) With Project Conditions which includes the proposed project in addition to the Cumulative without project scenario.

LEVEL OF SERVICE

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. Level of Service is defined on a scale of A to F, where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating speeds. Table 1 shows the delays and average daily traffic volumes (ADT) that are equivalent to each level of service.

Table 1 - Level of Service Ranges

LOS	Intersections[1]		Roadway Segments Average Daily Traffic (ADT)[2]		
	Signalized- Delay (Seconds/Vehicle)	Unsignalized Delay (Seconds/Vehicle)	Light Collector	Town Collector	2-Lane Highway[2]
A	Less than or Equal to 10.0	Less than or Equal to 10.0	Less Than 1,900	Less Than 3,000	-
B	10.1 to 20.0	10.1 to 15.0	1,900 to 4,100	3,000 to 6,000	-
C	20.1 to 35.0	15.1 to 25.0	4,100 to 7,100	6,000 to 9,500	-
D	35.1 to 55.0	25.1 to 35.0	7,100 to 10,900	9,500 to 13,500	Less Than 16,200
E	55.1 to 80.0	35.1 to 50.0	10,900 to 16,200	13,500 to 19,000	16,200 to 22,900
F	Greater Than 80.0	Greater Than 50.1	Greater Than 16,200	Greater Than 19,000	Greater Than 22,900

[1] The delay ranges shown are based on the 2000 Highway Capacity Manual (HCM)
[2] The volume ranges are based on the County of San Diego Circulation Element of a Light Collector & Town Collector, the average daily volume ranges for the other roadway classifications has been provided in Appendix A.
[3] The daily capacities for a two-lane highway are the capacities as proposed in the County of San Diego's *Guidelines for Determining Significance,* First Revision December 5, 2007 *see Appendix A*
LOS = Level of Service

According to page XII-4-15 of the San Diego County General Plan Public Facility Element "A LOS 'C', which allows for stable traffic flow with room to maneuver, is a generally accepted level to strive for in new development. ...However, there are some cases where development cannot achieve a LOS "C" on off-site roadways. For instance, there are areas where the existing development pattern precludes the addition of lanes or other mitigation or when the community is opposed to certain improvements to maintain a LOS 'C'. ...In these cases a Level of Service 'D' is acceptable on off-site roadways." A copy of excerpts from the County's Public Facility Element can be found in Appendix A.

ANALYSIS METHODOLOGY

The roadway segment daily LOS was determined by comparing the traffic volumes under each traffic scenario to the capacity of the roadway according to its roadway cross-section and classification. For the purpose of this report, the daily traffic volumes of the roadway segments in the vicinity of the project were compared to the County of San Diego Level of Service classification thresholds. The daily (24 hour) traffic count sheets and a copy of the "Summary of County of San Diego Public Road Standards" are included in Appendix A.

Since the spacing of signalized intersections is over one-mile, State Route 76 (Pala Road) east of Interstate 15 was analyzed utilizing the capacities of a two-lane highway as outlined in the County's *Guidelines for Determining Significance, First Revision December 5, 2007*. Copies of excerpts from the County's *Guidelines* are provided in Appendix A.

The analysis of intersections utilized the operational analysis procedure provided by the Synchro software, which is based on the methodologies outlined in the 2000 Highway Capacity Manual (HCM). This method defines Level of Service in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane (vphpl) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e. percentage trucks) and shared lane movements (i.e. through and right-turn movements originating from the same lane).

REPORT ORGANIZATION

Following this section, Section II evaluates the existing roadway characteristics and traffic conditions surrounding the project area. Section III examines the project trip generation and distribution assumptions. Section IV analyzes the traffic for existing plus project and cumulative conditions. Section V addresses project access and on-site circulation. Section VI provides recommended mitigation measures and Section VII summarizes the report's findings and conclusions.

SECTION II - EXISTING CONDITIONS

This section of the traffic study is intended to assess the existing conditions of the roadways the vicinity of the project to determine travel flow and/or delay difficulties, if any, that exist prior to adding the traffic generated by the proposed project. The existing conditions analysis establishes a base condition, which is used to assess the other scenarios discussed in this report.

Darnell & Associates, Inc. (D&A) conducted a field review of the area surrounding the project in April 2005. The existing roadway and intersection geometrics are illustrated in Figure 3.

EXISTING ROADWAY CHARACTERISTICS

The key segments analyzed in the study area are identified below:

State Route 76 (Pala Road): State Route 76 (SR-76) is generally constructed as an east-west two-lane undivided circulation element highway with 11 to 12 foot travel lanes with little to no shoulder. At Pauma Valley Drive, there are curve-warning signs with recommended speeds of 45 miles per hour (mph). At Interstate 15, the existing cross-section of SR-76 is equivalent to that of a Light Collector with a capacity of 10,900 ADT at LOS D. East of Interstate 15, the existing capacity of State Route 76 was assumed to be equivalent to the proposed capacity of a two-lane highway as outlined in the County's *Guidelines for Determining Significance, (First Revision December 5, 2007)* 16,200 ADT at LOS D.

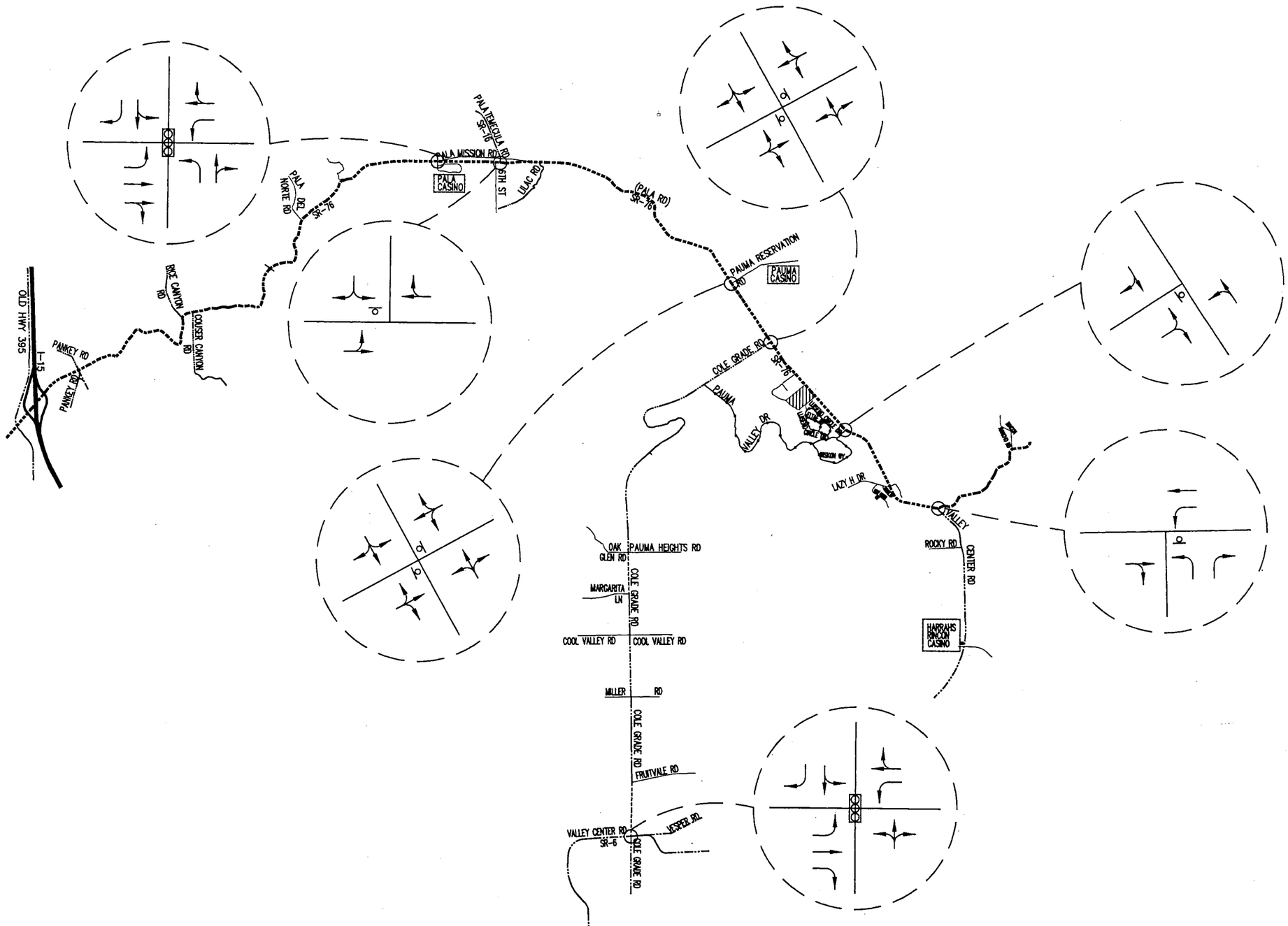
In the County of San Diego Circulation Element, SR-76 has the ultimate classification of a four-lane Major Road with bike lanes; capacity of 33,400 ADT at LOS D. The General Plan 2020 (GP 2020) proposed roadway network downgrades the ultimate classification of State Route 76 (Pala Road) in the vicinity of the project to a 2.1D Community Collector with Passing Lane Option (a two-lane undivided roadway with optional passing lanes, eight foot (8') shoulders, 84 feet of Right-of-Way [ROW], a design speed of 45 mph, and a capacity of 13,500 ADT at LOS D).

Cole Grade Road (SA 120): Cole Grade Road is a north-south circulation element roadway. The posted speed limit on Cole Grade Road is 45 miles per hour between Valley Center Road and Pauma Heights Road and 55 miles per hour north of Pauma Heights Road. Currently Cole Grade Road is constructed from approximately 100 yards north of Valley Center Road to Fruitvale Road and from Margarita Lane to Pauma Heights Road to provide two traffic lanes (one northbound and one southbound) and a center two way left turn lane. All other portions of Cole Grade Road are constructed as a two (2) lane undivided roadway. Currently, in the vicinity of the project Cole Grade Road is constructed to provide two (2) 11-foot travel lanes and 3.5-foot shoulders.

The current capacity of Cole Grade Road from approximately 100 yards north of Valley Center Road to Fruitvale Road and from Margarita Lane to Pauma Heights Road is equivalent to that of a Town Collector, 13,500 ADT at LOS D. The current capacity of the two-lane section is equivalent to that of a Light Collector, 10,900 ADT at LOS D.

In the County of San Diego Circulation Element, Cole Grade Road is classified as a four-lane Collector with bike lanes and a capacity of 30,800 ADT at LOS D.

The GP 2020 proposed roadway network downgrades the ultimate classification of Cole Grade Road south of SR-76 to a 2.2E Light Collector (a two-lane undivided roadway with eight-foot (8') shoulders, 64 feet of ROW, a design speed of 40 mph, and a capacity of 10,900 ADT at LOS D). The GP 2020 proposed roadway network also downgrades the ultimate classification of the segments of Cole Grade Road from Pauma Heights Road to Cool Valley Road to a 2.1A Community Collector with a raised median (a two-lane divided roadway with a raised median, 74 feet of ROW and a capacity of 15,000 ADT at LOS D). The segment of Cole Grade Road between Cool Valley Road and just north of Fruitvale Road



LEGEND

- PROJECT SITE
- FREEWAY
- 3-LANE TOWN COLLECTOR
- 2-LANE HIGHWAY
- 2-LANE LIGHT COLLECTOR
- 2-LANE PRIVATE STREET
- TRAVEL LANE
- TRAFFIC SIGNAL
- STOP SIGN

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FIGURE 3
EXISTING CONDITIONS

is classified in the GP 2020 roadway network as a 4.1A- Major Road with raised medians (a four-lane divided roadway with a raised median, 98 feet of ROW, and a capacity of 33,400 ADT at LOS D). The segment of Cole Grade Road from just north of Fruitvale Road to Valley Center Road is classified in the GP 2020 roadway network as a 4.2A-Boulevard (a four-lane divided roadway with a raised median, 106 feet of ROW, and a capacity of 27,000 ADT at LOS D).

Valley Center Road (SF 639): Valley Center Road is a circulation element roadway. Currently, Valley Center Road south of SR-76 is constructed as a two-lane undivided roadway with 11.5-foot travel lanes and 3.5 to 4.5 foot shoulders. Just south of SR-76, Valley Center Road is posted with curve warning signs with recommended speeds of 45 mph. The current cross-section of this section of Valley Center Road is equivalent to that of a Light Collector with a capacity of 10,900 ADT at LOS D.

The east-west portion of Valley Center Road runs through a commercial area consisting of mostly small businesses and is constructed as a two-lane roadway with bike lanes and a posted speed limit of 45 miles per hour. Left turn pockets are provided at the intersections. The existing capacity of this section of Valley Center Road is estimated to be 10,900 ADT at Level of Service LOS D. The County of San Diego has a planned and budgeted Capital Improvement Project (CIP) to improve Valley Center Road to four-lane Major Road standards between Banbury Drive and Cole Grade Road. When these improvements are completed, this section of Valley Center Road will have the capacity equivalent to a Major Road, 33,400 daily vehicles at LOS D. The Valley Center CIP is expected to be completed by December 2008. See Appendix A for the detailed project update for the Valley Center Road CIP project.

In the County of San Diego Circulation Element, Valley Center Road south of SR-76 has the ultimate classification of a four (4)-lane Collector Road; capacity of 30,800 ADT at LOS D. Valley Center Road between Lake Wohlford Road and Cole Grade has an ultimate classification of a 6-lane Prime Arterial with bike lanes, capacity of 50,000 at LOS D. East of Cole Grade Road, Valley Center Road has an ultimate classification of a four-lane Collector with bike lanes, and capacity of 30,800 daily vehicles at LOS D.

The GP 2020 (General Plan Update)proposed roadway network downgrades the ultimate classification of Valley Center Road south of SR-76 to a 2.1D Community Collector with Passing Lane Option (a two-lane undivided roadway with optional passing lanes, eight foot (8') shoulders, 84 feet of ROW, a design speed of 45 mph, and a capacity of 13,500 ADT at LOS D).

The GP 2020 (General Plan Update) proposed roadway network downgrades the ultimate classification of the segments of Valley Center Road between High Point Drive and Miller Road and the segments from Lilac Road to Woods Valley Road to a 4.2A-Boulevard (a four-lane divided roadway with a raised median, 106 feet of ROW, and a capacity of 27,000 ADT at LOS D). The segments of Valley Center Road between Miller Road and Lilac Road and south of Woods Valley Road were downgraded to the classification of a 4.1A Major Road with raised medians (a four-lane divided roadway with a raised median, 98 feet of ROW, and a capacity of 33,400 ADT at LOS D).

Luiseno Circle Drive: Luiseno Circle is a private circular drive located within the Pauma Valley Country Club. It is currently constructed with approximately 34 feet of pavement on 56 feet of right-of-way with curb and gutter on both sides of the roadway. A 40-foot wide gated access road is proposed to be constructed at the western edge of Luiseno Circle Drive to provide secondary access to the proposed Club Estates project.

ROADWAY SEGMENT DAILY TRAFFIC

Twenty-four (24) hour count data for the segments of State Route 76 (Pala Road) east of Interstate 15, Cole Grade Road between SR-76 and Pauma Valley Drive, and Valley Center Rod south of Cole Grade Road on Thursday, March 17, 2005. Existing traffic counts for the segments of Cole Grade Road between Margarita Road and Valley Center Road, and Valley Center Road west of Cole Grade Road were collected on a typical weekday in January 2006. The existing traffic volumes for Interstate 15 were

obtained from Caltrans website and are representative of the traffic volumes collected in 2006. To estimate existing (2007) traffic volumes, the 2005 and 2006 counts collected in the field were increased by a growth factor of four percent (4%) per year for a period of two (2) years (total growth of 8%) or one (1) year , respectively. The growth factor was estimated by taking the average yearly growth that occurred along SR-76 (Pala Road) between SANDAG's 2010 and 2030 forecasts. Figure 4 presents the existing (2007) conditions traffic volumes used in this analysis. Count summaries are included in Appendix A.

EXISTING ROADWAY SEGMENT LEVEL OF SERVICE CONDITIONS

The existing daily roadway segment levels of service are summarized in Table 2. As can be seen in Table 2, based on average daily conditions State Route 76 (Pala Road) currently operates at LOS F from west of Old Highway 395 to Interstate 15. In addition, the segments of Valley Center Road west of Cole Grade Road operates at LOS F and Cole Grade Road between Fruitvale Road and Valley Center Road currently operate at LOS E. All other roadway segments currently operate at an acceptable LOS D or better.

Table 2 - Existing Roadway Segment Daily Level of Service Summary

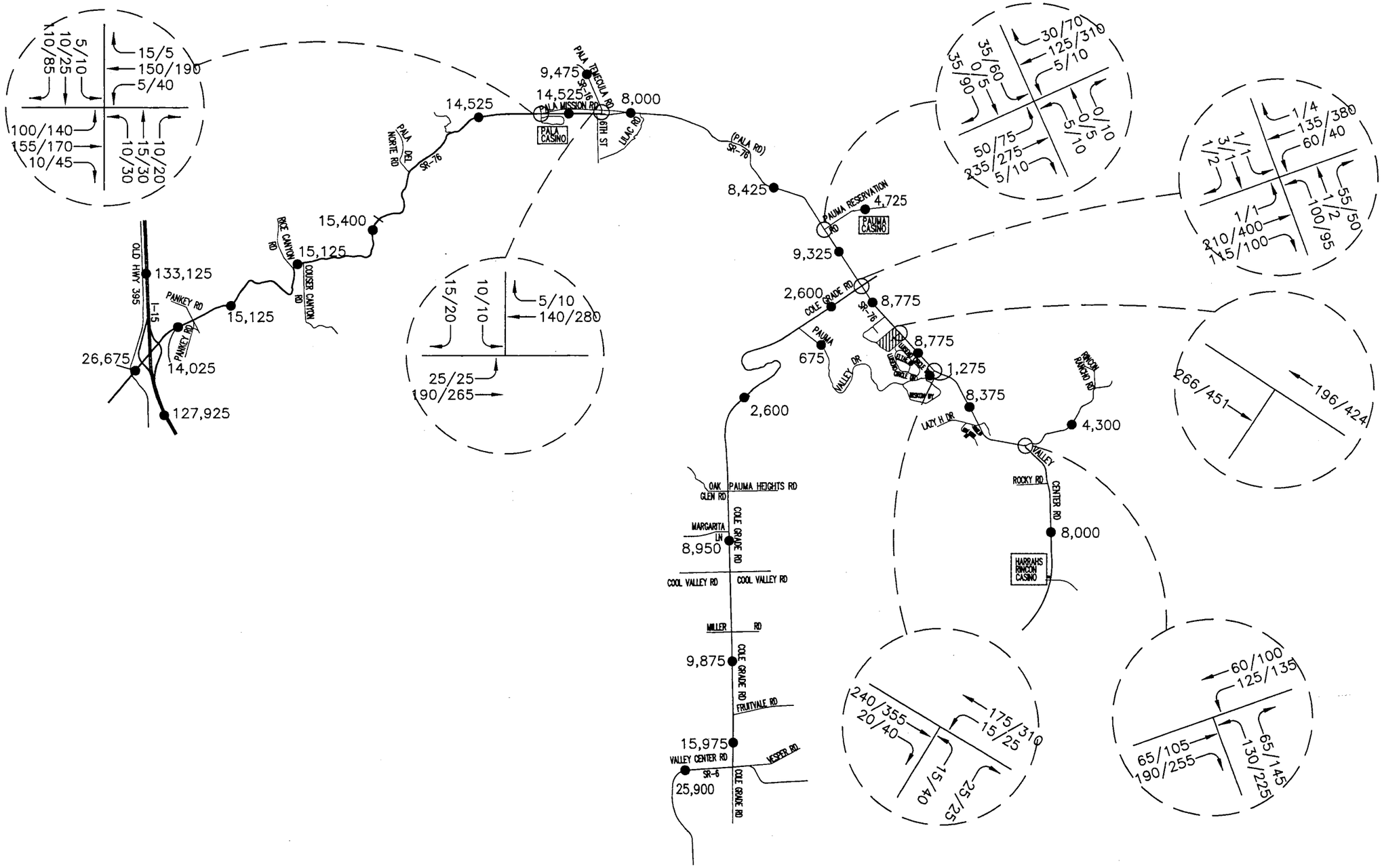
Freeway Segments

Roadway Segment	Classification	Capacity	ADT	V/C	LOS
Interstate 15					
East Mission Rd to SR-76	Freeway	(a)	133,125	0.782	C
SR-76 to Old Hwy 395	Freeway	(a)	127,925	0.743	C

Non-Freeway Segments

Roadway Segment	Classification	LOS D Capacity	ADT	LOS
State Route 76 (Pala Road)				
West of Old Hwy 395	Light Collector	10,900	**24,800**	**F**
Old Hwy 395 to I-15 SB Ramps	Light Collector	10,900	**26,675**	**F**
I-15 NB Ramps to Pankey Rd	2-Lane Highway	16,200	14,025	<D
Pankey Rd to Rice Canyon Rd	2-Lane Highway	16,200	15,125	<D
Rice Canyon Rd to Couser Cyn Rd	2-Lane Highway	16,200	15,125	<D
Couser Cyn Rd to Pala Del Norte	2-Lane Highway	16,200	15,400	<D
Pala Del Norte to Pala-Mission W (Pala Casino)	2-Lane Highway	16,200	14,525	<D
Pala-Mission W (Pala Casino) to Pala-Temecula	2-Lane Highway	16,200	14,525	<D
Pala Temecula to Lilac Rd	2-Lane Highway	16,200	8,000	<D
Lilac Rd to Pauma Reservation Rd	2-Lane Highway	16,200	8,425	<D
Pauma Reservation Rd to Cole Grade Rd	2-Lane Highway	16,200	9,325	<D
Cole Grade Rd to Club Estates Access	2-Lane Highway	16,200	8,775	<D
Club Estates Access to Pauma Valley Dr	2-Lane Highway	16,200	8,775	<D
Pauma Valley Dr to Valley Center Rd	2-Lane Highway	16,200	8,375	<D
Valley Center Rd to Rincon Rancho Rd	2-Lane Highway	16,200	4,300	<D
Valley Center Road				
SR-76 to Rocky Road	Light Collector	10,900	8,000	D
West of Cole Grade Road	Light Collector	16,200	**25,000**	**F**
Cole Grade Road				
SR-76 to Pauma Valley Drive	Light Collector	10,900	2,600	B
Pauma Valley Dr to Pauma Heights Rd	Light Collector	10,900	2,600	B
Margarita Rd to Cool Valley Rd	Light Collector	10,900	8,950	D
Cool Valley Rd to Via Valencia	Light Collector	10,900	9,875	D
Via Valencia to Fruitvale Rd	Light Collector	10,900	9,875	D
Fruitvale Rd to Valley Center Rd	Town Collector	13,500	**15,975**	**E**

ADT = Average Daily Traffic, V/C = Volume to Capacity Ratio, LOS = Level of Service, <D Operates at LOS D or better
(a) Capacity for Interstate 15 were determined based on the Caltrans District 11 procedures. See Appendix E for the calculations.



LEGEND

▨ – PROJECT SITE

● Z,ZZZ – AVERAGE DAILY TRAFFIC

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FIGURE 4
EXISTING TRAFFIC VOLUMES

EXISTING INTERSECTION OPERATION

Intersection operation in the project vicinity was analyzed for level of service. The scope of intersection analysis was limited to where the project contributes five (5) or more peak hour trips to a single critical movement. The resulting operation for the existing conditions are shown on Table 3.

As shown on Table 3, the following intersection demonstrates an existing deficiency:

Pala Road (SR-76)/Cole Grade Road (LOS F in PM Peak)

Table 3 - Existing Intersection Level of Service Summary

Intersection	Traffic Control	Critical Movement	Delay sec/veh	LOS
AM PEAK HOUR				
Pala Rd (SR76) (E-W)/ Pala Mission Rd (N-S)	Signalized	Int.	14.8	B
Pala Rd (SR76) (E-W)/Pala Temecula Rd (N-S)	OWSC	SB	10.2	B
Pala Rd (SR76) (N-S) /Pauma Reservation Rd (E-W)	TWSC	EB	13.4	B
		WB	12.0	B
Pala Rd (SR76) (E-W)/Cole Grade Road (N-S)	TWSC	NB	18.5	C
		SB	14.6	B
Pala Rd (SR76) (E-W)/Pauma Valley Dr (N-S)	OWSC	NB	11.3	B
Pala Rd (SR76) (E-W)/Valley Center Rd (N-S)	OWSC	WBL	8.2	A
		NB	14.6	B
PM PEAK HOUR				
Pala Rd (SR76) (E-W)/ Pala Mission Rd (N-S)	Signalized	Int.	18.0	B
Pala Rd (SR76) (E-W)/Pala Temecula Rd (N-S)	OWSC	SB	11.7	B
Pala Rd (SR76) (N-S) /Pauma Reservation Rd (E-W)	TWSC	EB	18.9	C
		WB	21.1	C
Pala Rd (SR76) (E-W)/Cole Grade Road (N-S)	TWSC	**NB**	**53.4**	**F**
		SB	19.0	C
Pala Rd (SR76) (E-W)/Pauma Valley Dr (N-S)	OWSC	NB	17.0	C
Pala Rd (SR76) (E-W)/Valley Center Rd (N-S)	OWSC	WBL	8.6	A
		NB	27.6	D

Delay is measured in seconds per vehicle; LOS=level of service;
Delay and LOS calculated using Synchro 6
OWSC = One-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled;
Int = Intersection; NB = Northbound Approach; SB = Southbound Approach;
EB = Eastbound Approach; WB = Westbound Approach; WBL = Westbound Left
E-W = East-West Street; N-S = North-South Street

SECTION III - PROJECT RELATED CONDITIONS

TRIP GENERATION

The trip generation potential for the project is based on trip generation rates, both daily and peak hour, which were taken from the *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* published by the San Diego Association of Governments (SANDAG) in April 2002. (A copy of the SANDAG Trip Generation rates is provided in Appendix A.)

Table 4 summarizes the trip generation rates and volumes for the proposed project. As shown in Table 4, the proposed 31-unit Club Estates project will generate a total of 372 average daily trips, 30, AM peak hour trip, and 37 PM peak hour trips. Since one of the homes on the project site is currently existing and occupied, the proposed project will only add 360 new average daily trips, 29 new AM peak hour trips, and 36 new PM peak hour trips to the adjacent roadway network.

Table 4 - Trip Generation Rates and Calculations Summary

Trip Generation Rates

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		Total - % of Daily	% In	% Out	Total - % of Daily	% In	% Out
Estate Residential	12 Trips/DU	8%	30%	70%	10%	70%	30%

Trip Generation

Land Use	Total No. of Units	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Proposed – Estate Res.	30 DU	360	29	9	20	36	25	11
Existing - Estate Res.	1 DU	12	1	0	1	1	1	0
Total Site:	**31 DU**	**372**	**30**	**9**	**21**	**37**	**26**	**11**

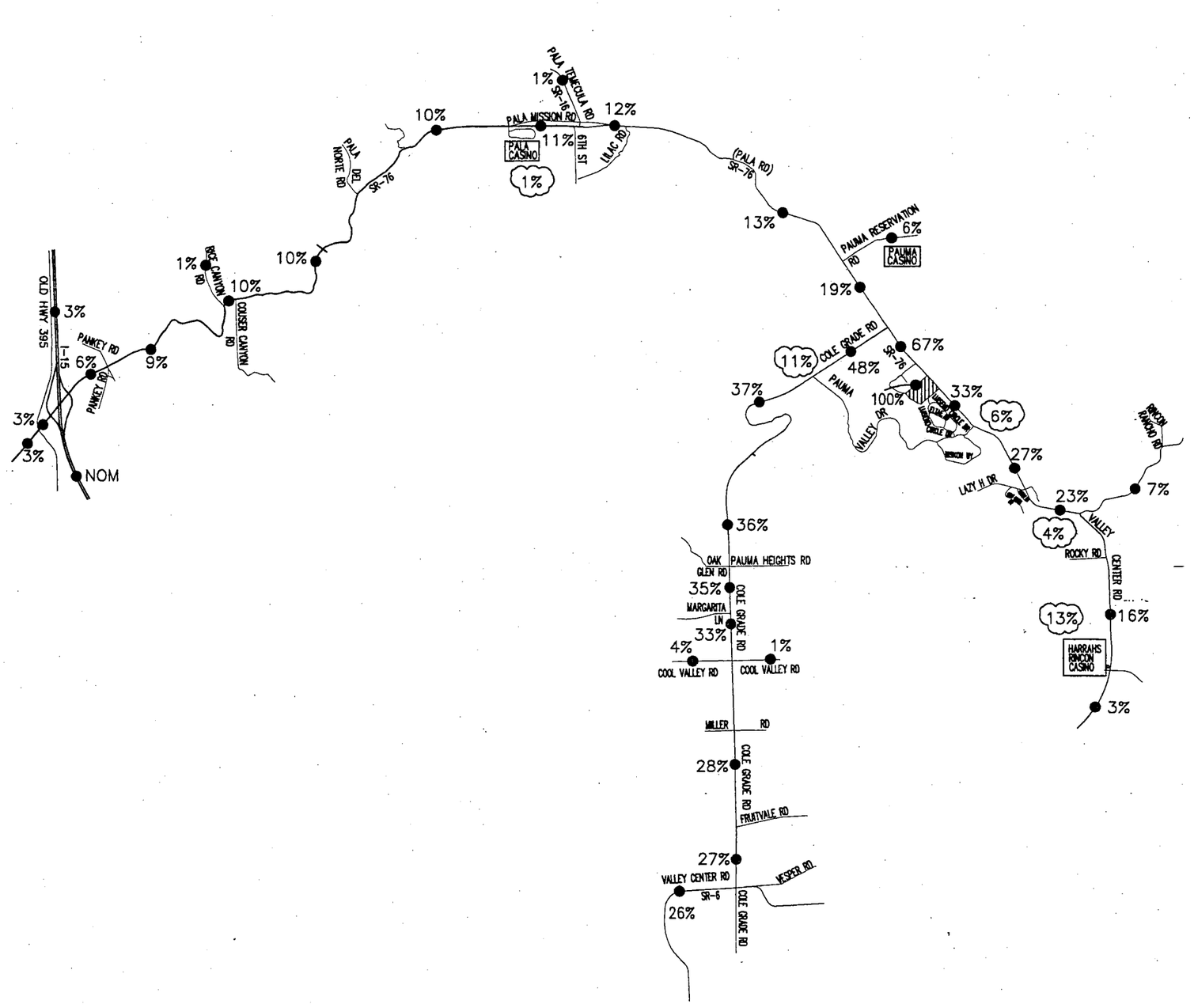
DU = Dwelling Unit; Trip Generation Rates based on SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002

It should be noted that based on current zoning, the project site is allowed to be developed at a density of up to one (1) dwelling unit per acre to yield a maximum potential development of 48-dwelling units. Any increase in the proposed number of dwelling units would require the traffic study to be updated to address the higher unit count.

TRIP DISTRIBUTION/TRIP ASSIGNMENT

The trip distribution percentages for the project were based on the SANDAG 2010 Select Zone Forecast. A copy of the Select Zone forecast if provided in Appendix C. The trip distribution percentages are illustrated in Figure 5. As illustrated in Figure 5 approximately 6 percent (6%) of the project traffic is assigned to the area located on the north side of SR-76 (Pala Road) and approximately four percent (4%) of the project traffic is assigned to the area located on the south side of SR-76 (Pala Road) between the project site and Valley Center Road. The area on the north side of SR-76 is currently occupied by a small commercial center including a post-office; the area along the south side of SR-76 is identified in the SANDAG 2010 Select Zone as containing commercial along with agricultural use.

The Select Zone assignment considers the location of employment centers, commercial and school uses/sites, roadway characteristics, and other trip end assumptions which determine the overall trip distribution to/from the project site. Application of the Select Zone model is consistent with the procedures adopted by the County of San Diego and requirements of the California Environmental Quality Act (CEQA).



LEGEND

▨ – PROJECT SITE

● XX% – DISTRIBUTION PERCENTAGE NOM – NOMINAL

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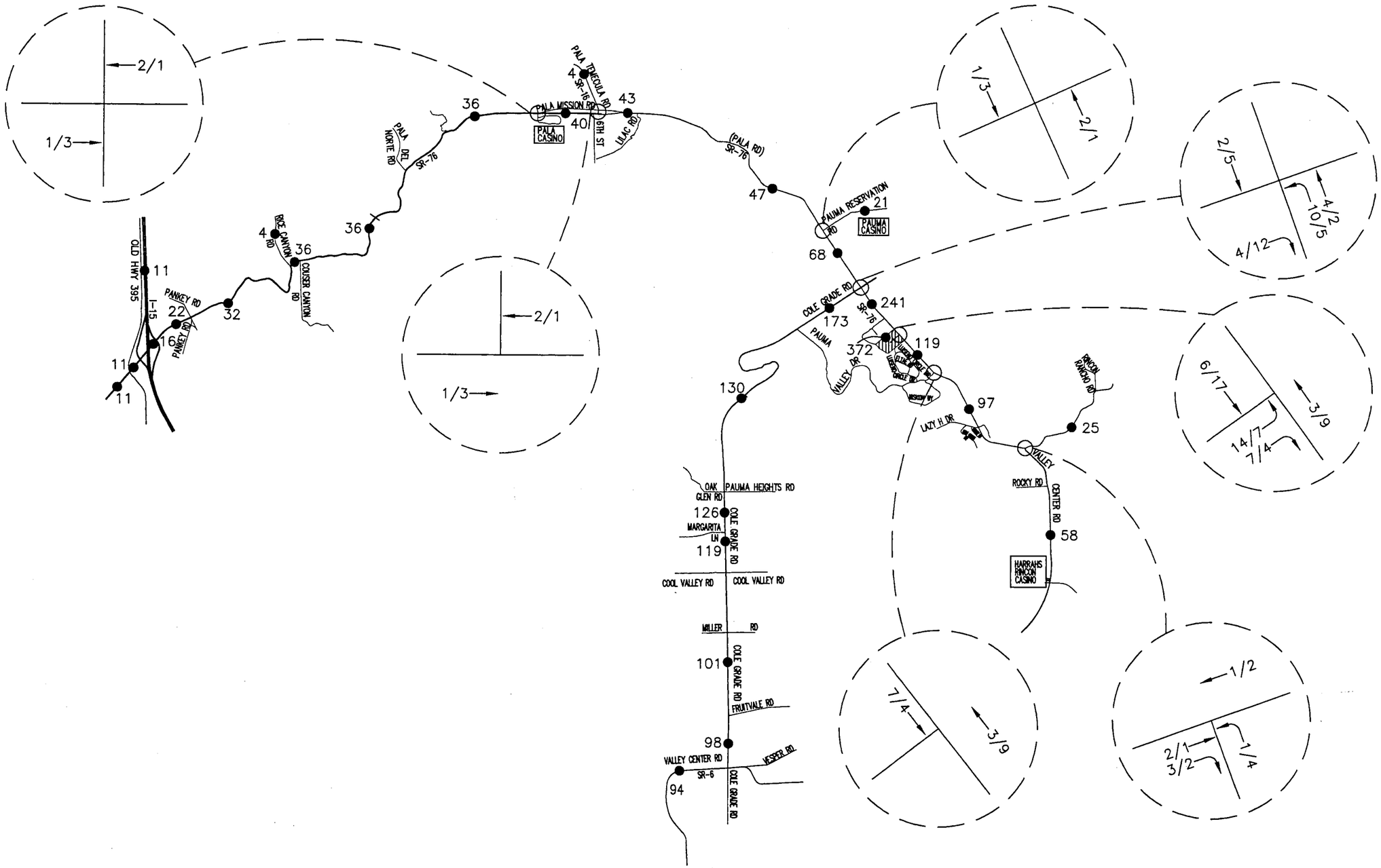
FIGURE 5

PROJECT TRIP DISTRIBUTION PERCENTAGES

The traffic generated by the proposed project was assigned to the roadway network utilizing the distribution percentages shown in Figure 5. The project related traffic volumes are illustrated in Figure 6. As previously discussed, the project site contains one (1) existing home that will remain with the development of the project. With the development of the proposed project, the access to the existing home will be relocated such that it shares access with the Club Estates development. Thus, the traffic volumes shown on Figure 6 at the project access represent the traffic associated with 31 homes (30 new homes and 1 existing home).



LEGEND

▨ – PROJECT SITE

● Z,ZZZ – AVERAGE DAILY TRAFFIC

Darnell & ASSOCIATES, INC. 050310EE.dwg 8-12-08 SN	FIGURE 6 PROJECT RELATED TRAFFIC

SECTION IV – IMPACTS

PUBLIC FACILITIES ELEMENT IN COUNTY

According to page XII-4-18 of the *Public Facility Element* for San Diego County, a discretionary project which has a significant impact on roadways will be required, as a condition of approval, to make "improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below 'D' on off-site and on-site abutting Circulation Element roads. New development that would significantly impact congestion on roads at LOS 'E' or 'F', either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to 'D' or better or appropriate mitigation is provided. Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines."

The *Public Facility Element* for the County of San Diego also requires that all on-site Circulation Element roads operate at Level of Service C or better. If the Level of Service at an on-site Circulation Element road is reduced below LOS C, the proposed project must provide appropriate mitigation measures. A copy of excerpts from the County's *Public Facility Element* can be found in Appendix A.

LEVELS OF SIGNIFICANCE STANDARDS

Although the *Public Facility Element* (PFE) sets standards as to which level of service roadways and intersections must operate within the County (i.e. requires operation of LOS D or better), it does not establish a threshold to evaluate whether a project is significant if it adds traffic to a roadway facility that is currently operating at an unacceptable LOS E or F. Thus, the County's *Guidelines for Determining Significance* (adopted September 26, 2006 and revised effective December 5, 2007) were developed to evaluate the significance of traffic impacts on roadways and intersections which are currently operating at LOS E or F. A summary of the County's Guidelines are provided in Table 5. Excerpts from the County's Guidelines are provided in Appendix A.

Table 5 - Measures of Significant Project Impacts

LOS	Allowable Increase on Congested Roads and Intersections				
	Unsignalized Intersections	Road Segments			
		2-Lane Road	3-Lane Road	4-Lane Road	6-Lane Road
LOS E	20 peak hour trips on a critical movement	200 ADT	300 ADT	400 ADT	600 ADT
LOS F	5 peak hour trips on a critical movement	100 ADT	150 ADT	200 ADT	300 ADT

Notes:
– A critical movement is one that is experiencing excessive queues.
– By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
– The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

ADT = Average Daily Traffic; LOS = Level of Service, sec = Seconds of Delay per Vehicle

It should be noted that the significance thresholds summarized in Table 5 is currently utilized by the County of San Diego to determine if a project has a significant direct and/or future impact. A project is considered to have a significant cumulative impact if it adds any traffic to a roadway segment and/or intersection that operates at LOS E or F under cumulative conditions and the total traffic added to the segment/intersection by the cumulative projects exceed the thresholds identified in Table 5.

Consistent with the *Public Facility Element* the criteria described below were only applied to segments and intersections that operate at LOS E or LOS F.

Roadway Segments

As shown in Table 5 (above), per the County's Guidelines, "[t]raffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a road segment, unless specific facts show that there are other circumstances that mitigate or avoid such impacts:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project as identified in Table [5], or

- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity."

As discussed on pages 13 and 14 of the *County of San Diego Guidelines for Determining Significance, First Revision December 5, 2007*, an increase of the daily thresholds established for roadway segments operating at LOS E would result in only one additional car every 2.4 minutes per lane while the thresholds established for roadway segments operating at LOS F would result in only one additional car every 4.8 minutes. Therefore, the thresholds identified in Table 5 (above), in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact on the roadway.

The County guidelines also states that "For large projects, controversial projects and/or projects which are preparing Environmental Impact Reports, more detailed evaluations to verify the applicability of the significance thresholds for the individual project conditions may be necessary. Additional evaluations may include analysis of vehicle headways, speeds, average gaps, queues, delay, and/or other factors."

For Regionally Significant Arterials (RSA) such as Interstate 15, the *San Diego Traffic Engineers' Council (SANTEC)/Institute of Transportation Engineers (ITE) Guidelines For Traffic Impact Studies (TIS) in the San Diego Region* may be utilized to determine significance. A summary of the SANTEC/ITE Guidelines are provided in Table 6. With the exception of Interstate 15 and State Route 76 east of Interstate 15, the County's *Guidelines for Determining Significance* (described in Table 5) were utilized to assess whether a project was significant. Since Caltrans bases the freeway levels of service on volume-to-capacity ratio (v/c) rather than ADT, the SANTEC/ITE Significance Thresholds summarized in Table 6 were utilized to evaluate the project's impacts to Interstate 15.

Table 6 - SANTEC/ITE Guidelines for Measures of Significant Project Impacts

LOS with Project	Allowable Change due to Project Impact						
	Freeways		Roadway Segments		Signalized Intersections	Ramps	Ramps with > 15 min. delay
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)	Delay (min.)
E & F	0.01	1	0.02	1	2	-	2

V/C = Volume to Capacity Ratio

In the *County of San Diego Guidelines for Determining Significance, First Revision December 5, 2007,* the County of San Diego established a higher capacity and a higher impact significance level for two-lane highways with signalized intersection spacing over on mile. Table 7 provides a summary of the level of service criteria and thresholds of significance for two-lane highways with intersection spacing over one-mile.

Table 7 - Measures of Significance on 2-Ln Hwys w/Signalized Intersection Spacing > 1 Mile

Level of Service	LOS Criteria	Impact Significance Level
E	> 16,200 ADT	>325 ADT
F	> 22,900 ADT	>225 ADT

Note: Where detailed data is available, the Director of Public Works may also accept a detailed level of service analysis based upon the two-lane highway analysis procedures provided in the Chapter 20 Highway Capacity Manual

Source: County of San Diego's *Guidelines for Determining Significance* First Revision December 5, 2007

Since State Route 76 east of Interstate 15 is a two-lane highway with very few signalized intersections, the level of service criteria and significance thresholds identified in Table 7 were utilized to assess the project's potential direct and cumulative impacts to the facility.

Signalized Intersections

"Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a" signalized intersection:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project as identified in Table [5], or

- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity."

As discussed on pages 15 and 16 of the *County of San Diego Guidelines for Determining Significance, First Revision December 5, 2007*, an increase in delay of two seconds, the threshold established for signalized intersections operating at LOS E, "...is a small fraction of the typical cycle length for a signalized intersection that ranges between 60 and 120 seconds. The likelihood of increased queues forming due to the additional two seconds of delay is low." Thus, the increase in delay of two (2) seconds, on average, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact. Since small changes and disruptions to the traffic flow at a signalized intersection can have a greater effect on the overall intersection operation when the intersection is operating at LOS F, versus LOS E, a more stringent guideline of one (1) second of delay was established for intersections operating at LOS F.

The five (5)-peak hour trip threshold, established for the critical movement of a signalized intersection operating at LOS F, when spread out over the peak hour, results in an increase of one (1) vehicle every 12 minutes or 720 seconds. This increase would not be noticeable to the average driver because one additional vehicle during a 12-minute interval on average would clear the traffic signal cycles well within the 12-minute period. Further, even if all five (5) additional peak hour vehicles arrived at the same time, these trips would also, on average, clear the traffic cycle and the existing queue lengths would be re-established. Thus, the increase of five (5) peak hour trips to a critical movement at a signalized intersection, on average, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact. (See page 16 of the County's *Guidelines for Determining Significance* provided in Appendix A.)

Unsignalized Intersections

"Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact" at an unsignalized intersection:

- "The additional or redistributed ADT generated by the proposed project will add [more than 20] peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS D, or

- The additional or redistributed ADT generated by the proposed project will add [more than 20] peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or

- The additional or redistributed ADT generated by the proposed project will add [more than 5] peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or

- The additional or redistributed ADT generated by the proposed project will add [more than 5] peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or

- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, it is found that the generation rate less than those specified above, and would significantly impact the operations of the intersection."

As discussed on pages 17 and 18 of the *County of San Diego Guidelines for Determining Significance, First Revision December 5, 2007,* the addition of 20 peak hour trips to a critical movement, the threshold established for an unsignalized intersection operating at LOS E, would result in an increase of one (1) vehicle every 3.0 minutes or 180 seconds. "Assuming the wait time for a vehicle in the critical movement queue is less than 3.0 minutes, which is typical for LOS E conditions; this would not be noticeable to the average driver and would not be considered a significant impact." The five (5)-peak hour trip threshold established for an unsignalized intersection operating at LOS F, would result in an increase of one (1) vehicle every 12.0 minutes or 720 seconds. "This typically exceeds the average wait time in the queue and would not be noticeable to the average driver." (See page 18 of the County's *Guidelines for Determining Significance* provided in Appendix A.)

Cumulatively Considerable Impacts

The following three (3) criteria were utilized to evaluate whether the project results in a cumulatively considerable portion of the total cumulative impacts:

1) The daily project traffic (ADT) added to the roadway segment compared to the total cumulative traffic added to the roadway segment (i.e. 22 ADT added by the project vs. 49,139 ADT added by the cumulative projects);

2) The project's percentage of the cumulative project traffic added to the roadway segment (i.e. if the project added 22 ADT to the roadway segment, and the total cumulative projects added to the roadway segment was 49,139 ADT, the project accounted for only 0.04% of the total cumulative traffic added to the roadway segment); and

3) The estimated average driver's perception of the project's contribution to the impacts at a roadway intersection or upon a roadway segment is estimated to be insignificant since the

additional traffic generated by the project results in the addition of one (1) or less additional vehicle every fifteen (15) minutes during peak hour traffic operations.

EXISTING PLUS PROJECT ROADWAY SEGMENT OPERATION

The existing plus project traffic volumes are illustrated in Figure 7.

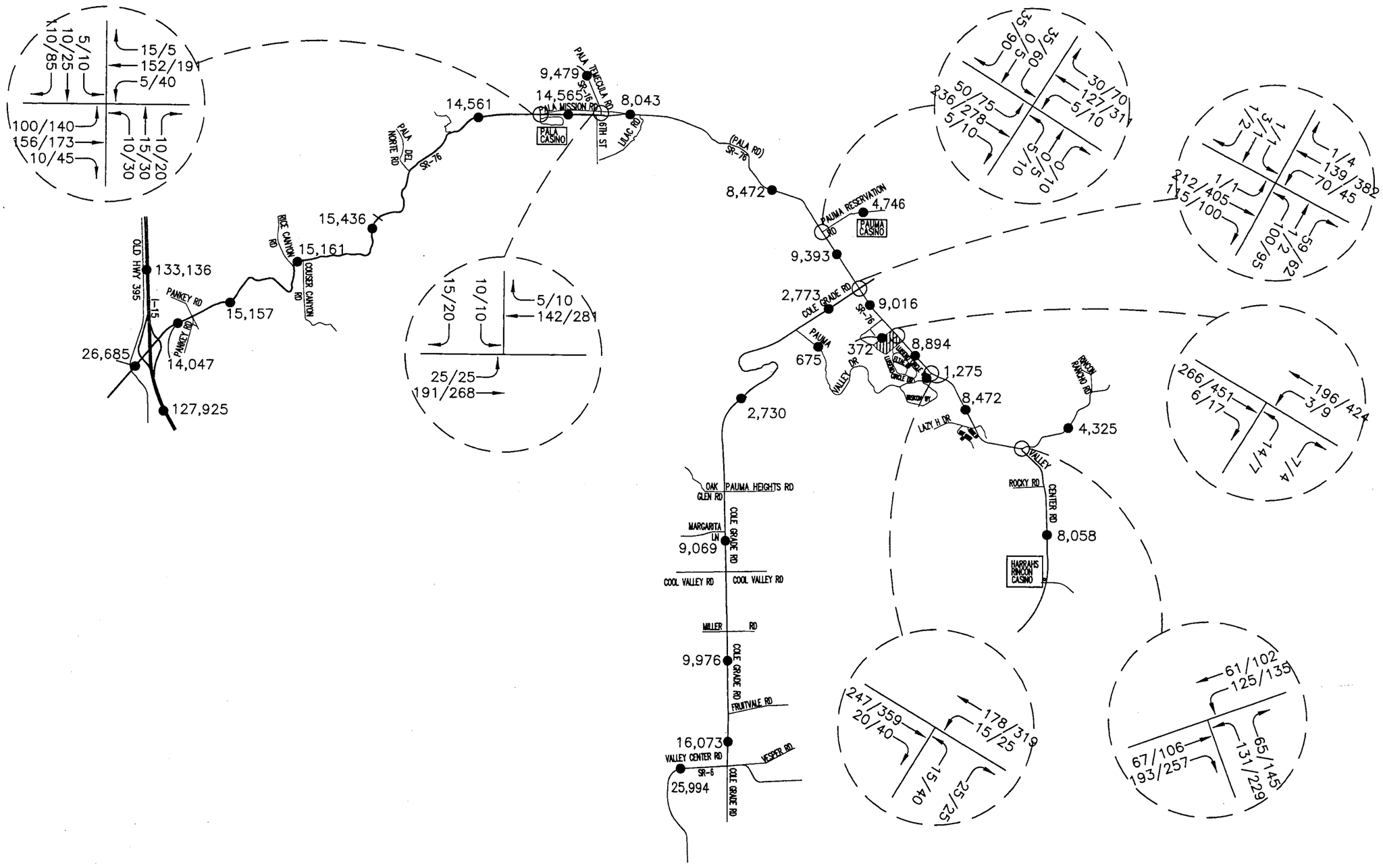
The roadway segments were analyzed with the traffic generated from the proposed project added to existing traffic volumes. The roadway segments daily levels of service are summarized in Table 8. As can be seen in Table 8, based on average daily conditions, the following roadway segments operate at an unacceptable LOS E or F under existing and existing plus project conditions: (1) State Route 76 (Pala Road) from west of Old Highway 395 to Interstate 15, (2) Valley Center Road west of Cole Grade Road, and (3) Cole Grade between Fruitvale Road and Valley Center Road.

The segment of State Route 76 (Pala Road) from west of Old Highway 395 to Interstate 15 operates at LOS F under existing conditions. With the addition of 11 ADT from the proposed project, this segment of State Route 76 will continue to operate at LOS F. Under the PFE criteria, a significant impact would result if the project would "significantly impact congestion" on this road segment which currently operates at LOS F. Since the project traffic added to this segment of State Route 76 is less than the 100 ADT allowed per the County of San Diego's *Guidelines for Determining Significance* for a two-lane roadway operating at LOS F, it is concluded that the proposed project will not significantly impact congestion. Thus, the proposed project does not have a significant direct impact on the segment of State Route 76 from west of Old Highway 395 to Interstate 15.

The segment of Valley Center Road west of Cole Grade Road operates at LOS F under existing conditions. With the addition of 94 ADT from the proposed project, this segment of Valley Center Road will continue to operate at LOS F. Under the PFE criteria, a significant impact would result if the project would "significantly impact congestion" on this road segment which currently operates at LOS F. Since the project traffic added to this segment of Valley Center Road is less than the 100 ADT allowed per the County of San Diego's *Guidelines for Determining Significance* for a two-lane roadway operating at LOS F, it is concluded that the proposed project will not significantly impact congestion. Thus, the proposed project does not have a significant direct impact on the segment of Valley Center Road west of Cole Grade Road.

The segment of Cole Grade Road between Fruitvale Road and Valley Center Road operates at LOS E under existing conditions. With the addition of 98 ADT from the proposed project, this segment of Cole Grade Road will continue to operate at LOS E. Under the PFE criteria, a significant impact would result if the project would "significantly impact congestion" on this road segment which currently operates at LOS E. Since the project traffic added to this segment of Cole Grade Road is less than the 300 ADT allowed per the County of San Diego's *Guidelines for Determining Significance* for a three-lane roadway operating at LOS E, it is concluded that the proposed project will not significantly impact congestion. Thus, the proposed project does not have a significant direct impact on the segment of Cole Grade Road between Fruitvale Road and Valley Center Road.

All other key roadway segments continue to operate at LOS D or better under existing plus project condition.



LEGEND

▨ – PROJECT SITE

● Z,ZZZ – AVERAGE DAILY TRAFFIC

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FIGURE 7
EXISTING + PROJECT TRAFFIC VOLUMES

Table 8 - Existing Plus Project Roadway Segment Daily Level of Service Summary

Freeway Segments

Roadway Segment	Classification	Capacity	Existing			Project Traffic	Existing + Project				
			ADT	V/C	LOS		ADT	V/C	LOS	Δ V/C	Significant
Interstate 15											
East Mission Rd to SR-76	Freeway	(a)	133,125	0.782	C	11	133,136	0.782	C	0.000	No
SR-76 to Old Hwy 395	Freeway	(a)	127,925	0.743	C	0	127,925	0.743	C	0.000	No

Non-Freeway Segments

Roadway Segment	Classification	LOS D Capacity	Existing		Project Traffic	Existing + Project		
			ADT	LOS		ADT	LOS	Significant
State Route 76 (Pala Road)								
West of Old Hwy 395	Light Collector	10,900	**24,800**	**F**	**11**	**24,811**	**F**	**No**
Old Hwy 395 to I-15 SB Ramps	Light Collector	10,900	**26,675**	**F**	**11**	**26,686**	**F**	**No**
I-15 NB Ramps to Pankey Rd	2-Lane Highway	16,200	14,025	<D	22	14,047	<D	No
Pankey Rd to Rice Canyon Rd	2-Lane Highway	16,200	15,125	<D	32	15,157	<D	No
Rice Canyon Rd to Couser Cyn Rd	2-Lane Highway	16,200	15,125	<D	36	15,161	<D	No
Couser Cyn Rd to Pala Del Norte	2-Lane Highway	16,200	15,400	<D	36	15,436	<D	No
Pala Del Norte to Pala-Mission W (Pala Casino)	2-Lane Highway	16,200	14,525	<D	36	14,561	<D	No
Pala-Mission W (Pala Casino) to Pala-Temecula	2-Lane Highway	16,200	14,525	<D	40	14,565	<D	No
Pala Temecula to Lilac Rd	2-Lane Highway	16,200	8,000	<D	43	8,043	<D	No
Lilac Rd to Pauma Reservation Rd	2-Lane Highway	16,200	8,425	<D	47	8,472	<D	No
Pauma Reservation Rd to Cole Grade Rd	2-Lane Highway	16,200	9,325	<D	68	9,393	<D	No
Cole Grade Rd to Club Estates Access	2-Lane Highway	16,200	8,775	<D	241	9,016	<D	No
Club Estates Access to Pauma Valley Dr	2-Lane Highway	16,200	8,775	<D	119	8,894	<D	No
Pauma Valley Dr to Valley Center Rd	2-Lane Highway	16,200	8,375	<D	97	8,472	<D	No
Valley Center Rd to Rincon Rancho Rd	2-Lane Highway	16,200	4,300	<D	25	4,325	<D	No
Valley Center Road								
SR-76 to Rocky Road	Light Collector	10,900	8,000	D	58	8,058	D	No
West of Cole Grade Road	Light Collector	16,200	**25,000**	**F**	**94**	**25,994**	**F**	**No**
Cole Grade Road								
SR-76 to Pauma Valley Drive	Light Collector	10,900	2,600	B	173	2,773	B	No
Pauma Valley Dr to Pauma Heights Rd	Light Collector	10,900	2,600	B	130	2,730	B	No
Margarita Rd to Cool Valley Rd	Light Collector	10,900	8,950	D	119	9,069	D	No
Cool Valley Rd to Via Valencia	Light Collector	10,900	9,875	D	101	9,976	D	No
Via Valencia to Fruitvale Rd	Light Collector	10,900	9,875	D	101	9,976	D	No
Fruitvale Rd to Valley Center Rd	Town Collector	13,500	**15,975**	**E**	**98**	**16,073**	**E**	**No**
Club Estates Access [(b)]								
South of SR-76	Residential Road	1,500	Does Not Exist		372	372	<C	No

ADT = Average Daily Traffic, V/C = Volume to Capacity Ratio, LOS = Level of Service, Δ V/C = Change in volume-to-capacity ratio, < D = Operates at LOS D or better, < C = Operates at LOS C or better

(a) Capacity for Interstate 15 were determined based on the Caltrans District 11 procedures. See Appendix E for the calculations

(b) Levels of service are not typically applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. The capacity shown here is the recommended upper limit to maintain LOS C or better

EXISTING PLUS PROJECT INTERSECTION OPERATION

The existing plus project intersection operation is summarized in Table 9. As shown on Table 9, the following intersection demonstrates a deficiency:

> **Pala Road (SR-76)/Cole Grade Road - (LOS F in PM Peak)** - This intersection was identified as deficient for the existing condition. The project does not add more than five (5) PM peak hour trips to a single critical movement (right turns excluded) and is not considered to have a direct impact.

All other intersections demonstrate acceptable levels of service for the existing plus project scenario.

Table 9 - Existing Plus Project Intersection Level of Service Summary

Intersections	Traffic Control	Crit. Mvmt.	Existing		Existing+Project					
			Delay sec/veh	LOS	Delay sec/veh	LOS	Δ Delay	Max Crit Mvmt	Proj. Signif?	Impact Type
AM PEAK HOUR										
Pala Rd (SR76) (E-W)/ Pala Mission Rd (N-S)	Signalized	Int.	14.8	B	14.8	B	0.0	2	No	None
Pala Rd (SR76) (E-W)/ Pala Temecula Rd (N-S)	OWSC	SB	10.2	B	10.2	B	0.0	2	No	None
Pala Rd (SR76) (N-S) / Pauma Reservation Rd (E-W)	TWSC	EB	13.4	B	13.5	B	0.1	2	No	None
		WB	12.0	B	12.1	B	0.1			
Pala Rd (SR76) (E-W)/ Cole Grade Road (N-S)	TWSC	NB	18.5	C	19.6	C	1.1	10	No	None
		SB	14.6	B	15.1	C	0.5			
Pala Rd (SR76) (E-W)/ Pauma Valley Dr (N-S)	OWSC	NB	11.3	B	11.4	B	0.1	7	No	None
Pala Rd (SR76) (E-W)/ Valley Center Rd (N-S)	OWSC	WBL	8.2	A	8.2	A	0.0	2	No	None
		NB	14.6	B	14.7	B	0.1			
PM PEAK HOUR										
Pala Rd (SR76) (E-W)/ Pala Mission Rd (N-S)	Signalized	Int.	18.0	B	18.0	B	0.0	3	No	None
Pala Rd (SR76) (E-W)/ Pala Temecula Rd (N-S)	OWSC	SB	11.7	B	11.7	B	0.0	3	No	None
Pala Rd (SR76) (N-S) / Pauma Reservation Rd (E-W)	TWSC	EB	18.9	C	19.0	C	0.1	3	No	None
		WB	21.1	C	21.3	C	0.2			
Pala Rd (SR76) (E-W)/ Cole Grade Road (N-S)	TWSC	**NB**	**53.4**	**F**	**59.5**	**F**	**6.1**	**5**	**No**	**None**
		SB	19.0	C	19.8	C	0.8			
Pala Rd (SR76) (E-W)/ Pauma Valley Dr (N-S)	OWSC	NB	17.0	C	17.2	C	0.2	9	No	None
Pala Rd (SR76) (E-W)/ Valley Center Rd (N-S)	OWSC	WBL	8.6	A	8.6	A	0.0	4	No	None
		NB	27.6	D	28.9	D	1.3			

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service;
Max Critical Movement = maximum project vehicles in single critical movement (right turns are not critical movements)
Delay and LOS calculated using Synchro 6, Project significance based on County thresholds, OWSC = One-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach; WBL = Westbound Left, E-W = East-West Street; N-S = North-South Street

CUMULATIVE TRAFFIC IMPACTS

County Transportation Impact Fee (TIF) Ordinance

The County of San Diego has developed an overall programmatic solution that addresses existing and projected future road deficiencies in the unincorporated portions of San Diego County. This program includes the adoption of a Transportation Impact Fee (TIF) program to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. This program is based on a summary of projections method contained in an adopted planning document, as referenced in the State CEQA Guidelines Section 15130 (b)(1)(B), which evaluates regional or area wide conditions contributing to cumulative transportation impacts. Based on SANDAG regional growth and land use forecasts, the SANDAG Regional Transportation Model was utilized to analyze projected build-out (year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulative impacts from new development was identified. Existing roadway deficiencies will be corrected through improvement projects funded by other public funding sources, such as TransNet, gas tax, and grants.

Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway buildout over the next 30 years, will use funds from TransNet, state, and federal funding to improve freeways to projected level of service objectives in the RTP.

The proposed project generates 360 new average daily trips. These trips will be distributed on circulation element roadways in the County that were analyzed by the TIF program, some of which currently or are projected to operate at inadequate levels of service. The potential growth represented by the proposed project was included in the growth projections upon which the TIF program is based. Therefore, payment of the TIF, which will be required at issuance of building permits, in combination with other components of the program described above, will mitigate potential cumulative traffic impacts to less than significant.

County Transportation Impact Fee (TIF) Report

The January 2005 *County of San Diego Transportation Impact Fee Report* written by Boyle Engineering Corporation in conjunction with Wilson & Company and the County of San Diego was prepared to assess the indirect, cumulative traffic impacts throughout the unincorporated areas of the County of San Diego. This report was updated by the County in January 2008. (A copy of excerpts from the County TIF Program Update January 2008 is provided in Appendix D.) The SANDAG regional land use forecasts and traffic models were used to determine the amount of expected future development and types of transportation improvements needed. The SANDAG forecasts utilized within the TIF report based the residential land use assumptions on the proposed General Plan 2020 (GP2020) build-out growth estimates from October 2004 and the non-residential land use assumptions were based on the SANDAG Series 10 2030 projection and remaining vacant developable land data. The proposed Club Estates project is consistent with both the existing and proposed GP2020 land use designations and was thus included in the analysis within the County TIF report.

For purposes of the County TIF program, the unincorporated area of San Diego County was divided into three regions: North, South, and East. "The TIF program differentiates between 'local' transportation facilities (collectors and minor streets) that benefit the community in which they are located, and 'regional' facilities (state routes, prime arterials, major roads, and other regionally significant roadways) that benefit both the community and surrounding area – in this case the North, South or East region." The proposed Club Estates project is located in the Pala-Pauma Community which is within the North region of the TIF program.

In September 2005, the County of San Diego adopted an "Addendum to Transportation Impact Fee Reports Adding Portion of State Route 76 & Certain Interstate 15 Ramps to TIF Fees For North Region". The addendum included improvement on State Route 76 from 2 lanes to 4 lanes between Interstate 15 and Couser Canyon Road. In addition, the addendum included various interchange/ramp modifications at the State Route 76/Interstate 15 interchange. Copies of the TIF Addendum are provided in Appendix D.

The County TIF report analyzed all of the Circulation Element roadways within the County of San Diego under existing and buildout conditions. The analysis within the County TIF report found that there were no existing deficiencies in the Pala-Pauma Community. Under buildout conditions, the TIF report found that the following two roadway segments within the Pala-Pauma Community would operate at deficient levels of service and thus included in the TIF program: (1) 1.76 miles of Valley Center Road south of SR-76 (Pala Road) and (2) 2.5 miles of SR-76 (Pala Road) east of Valley Center Road. Since the proposed Club Estates project will add traffic to these roadway segments, it is considered to be part of a significant cumulative impact.

As previously stated, the Club Estates project was included in the analysis within the County TIF report, thus payment of the County Transportation Impact Fee will mitigate the project's cumulative impacts. The "local" portion of the TIF payment will mitigate the project's cumulative impacts to Valley Center Road and the "regional" portion of the TIF payment will mitigate the project's cumulative impacts to SR-76.

A more detailed discussion on the project's potential cumulative impacts to the roadway segments is provided in the following section.

CUMULATIVE CONDITIONS

Ambient Growth

To account for any additional projects that may come on line prior to the development of the proposed project (estimated to be 2009), an ambient growth of 2.9% (average growth per year) for a period of two (2) years (total growth of 5.8%) was added to the existing (2007) traffic volumes. The ambient growth utilized is the average growth per year that occurred along the key roadway segment between the existing (2005 field counts) and the 2030 GP2020 traffic forecasts.

Pending Developments

The County provided D&A with a list of pending developments that might add traffic to the same roadways as the proposed project. With the exception of the projects requiring General Plan Amendments (Meadowood, Warner Ranch, Campus Park West, Campus Park), the proposed Pala and Pauma Casino Expansions, and the proposed Palomar College project, all of the pending projects including in the list provided by the County are consistent with the County's current plan and zone and should thus be included in the GP2020 forecast. Therefore, the ambient growth factor discussed above accounts for all pending project's traffic that would potentially be developed within the next two years. (A copy of the list of pending projects is provided in Appendix F.)

Additionally, there is the potential for the four parcels of land (APN: 130-100-21 through 24) located on 48-acres adjoining the proposed Club Estates site to the northwest to be developed at a density of one-dwelling unit per acre. Although there is no current application to develop these parcels of land, due to the potential shared access point with the Club Estates project (See Section V for more details), the traffic associated with the potential development was included in the cumulative analysis to assess whether it would negatively impact the development of the proposed project.

Figure 8 illustrates the location of the pending developments that were not included in the GP2020 forecasts. A summary of the trip generation calculations for the pending developments not included in the GP2020 forecasts in provide in Appendix F.

The ambient growth (5.8%) plus the traffic generated by the Meadowwood, Warner Ranch, Campus Park West, Campus Park, Pala Casino Expansion, Pauma Casino Expansion, Palomar College, and the Adjacent 48-Acre Parcel (APN: 130-100-21 through 24) were added onto the existing traffic volumes to estimate the cumulative (2009) without project traffic volumes. Figure 9 illustrates the cumulative without project traffic volumes.

CUMULATIVE WITH PROJECT ROADWAY SEGMENT OPERATION

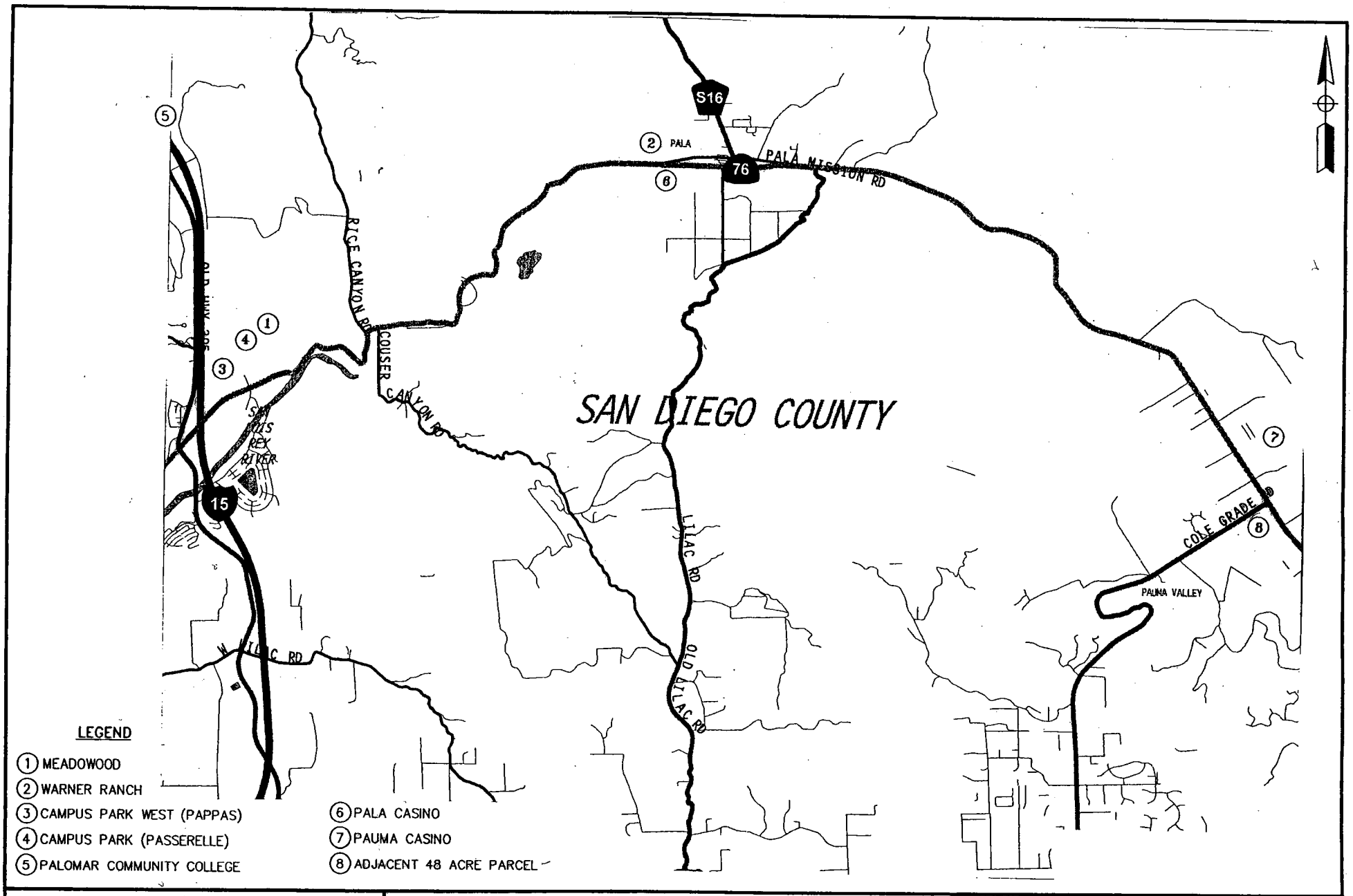
The cumulative with project traffic volumes are illustrated in Figure 10.

The roadway segments were analyzed with the traffic generated from the proposed project added to cumulative without project traffic volumes. The roadway segments daily levels of service are summarized in Table 10. As can be seen in Table 10, the following roadway segments will operate at an unacceptable LOS E or F under cumulative conditions with or without the proposed project:

- **Interstate 15 between SR-76 to Old Highway 395 -** operates at LOS E under cumulative conditions with or without the proposed project, thus there is a significant cumulative impact on this segment of Interstate 15. The cumulative projects add 41,443 ADT to this segment of Interstate 15. The proposed Club Estates project, however, is not expected to add any traffic to this segment of Interstate 15 and is thus not considered to be part of the cumulative impact.

- **State Route 76 (Pala Road) from West of Old Highway 395 to Pala-Mission Road West (Pala Casino) -** operates at LOS F under cumulative conditions with or without the proposed project, thus there is a significant cumulative impact on this segment of SR-76. The cumulative projects add between 12,948 ADT to 49,139 ADT to these segments of SR-76. The proposed Club Estates project accounts for a range of 11 ADT to 36 ADT The project traffic of 11 ADT to 36 ADT added to the segment of SR76 (Pala Road) between Old Highway 395 and Pala-Mission Road West (Pala Casino) is 0.8% to 0.16% of the total cumulative traffic added. Between Old Highway 395 and I-15 the project represents 11 ADT of the 13,591 cumulative ADT. East of I-15 to Pankey Road the project represents 22 ADT of the 49,139 cumulative ADT. From Rice Canyon Road to Pala-Mission Road West (Pala Casino) the project represents 36 ADT of the 23,065 cumulative ADT. As was also illustrated in Figure 6, when spread out throughout the day, these daily trips assign a maximum of four (4) two-way trips to the roadway during the peak hour, which is the equivalent of approximately one (1) vehicle every 15 minutes. This will not be noticeable to the average driver. Therefore the project will not result in a cumulatively considerable impact to the segment of State Route 76 (Pala Road) from west of Old Highway 395 to Pala-Mission Road West (Pala Casino).

- **State Route 76 (Pala Road) between Pala-Mission Road West (Pala Casino) and Pala-Temecula Road** – operates at LOS E under cumulative conditions with or without the proposed project, thus there is a significant impact on this segment of SR-76. The cumulative projects add 7,948 to this segment of SR-76. The proposed Club Estates project accounts for 40 ADT, which is 0.5% of the total cumulative traffic, added to this segment of SR-76. As was also illustrated in Figure 6, when spread out throughout the day, these daily trips assign a maximum of four (4) two-way trips to the roadway during the peak hour, which is the equivalent of approximately one (1) vehicle every 15 minutes. This will not be noticeable to the average driver. Therefore the project will not result in a cumulatively considerable impact to this segment of State Route 76 (Pala Road).



Darnell & ASSOCIATES, INC.

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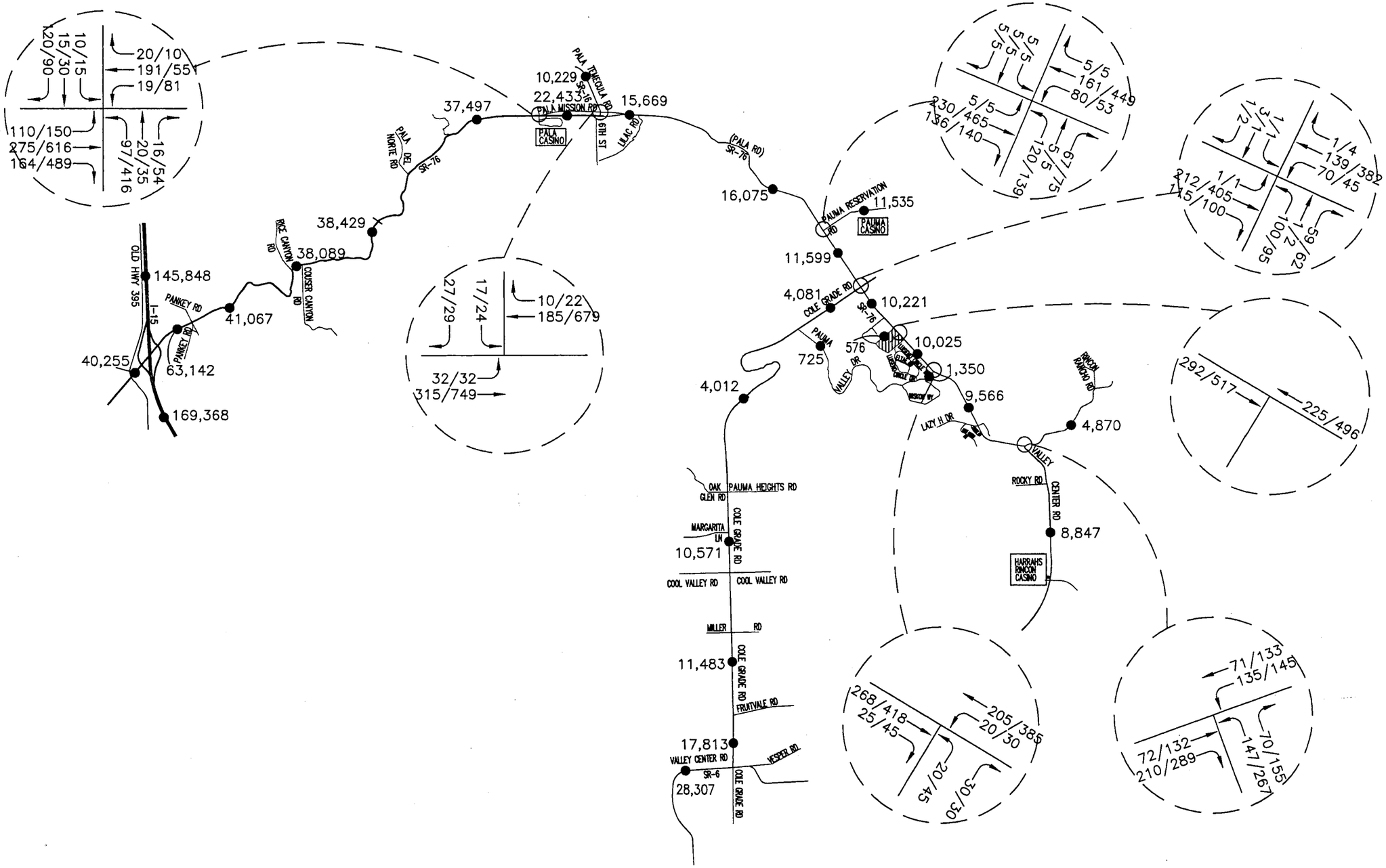
FIGURE 8

LOCATION OF CUMULATIVE PROJECTS



LEGEND

▨ – PROJECT SITE

● Z,ZZZ – AVERAGE DAILY TRAFFIC

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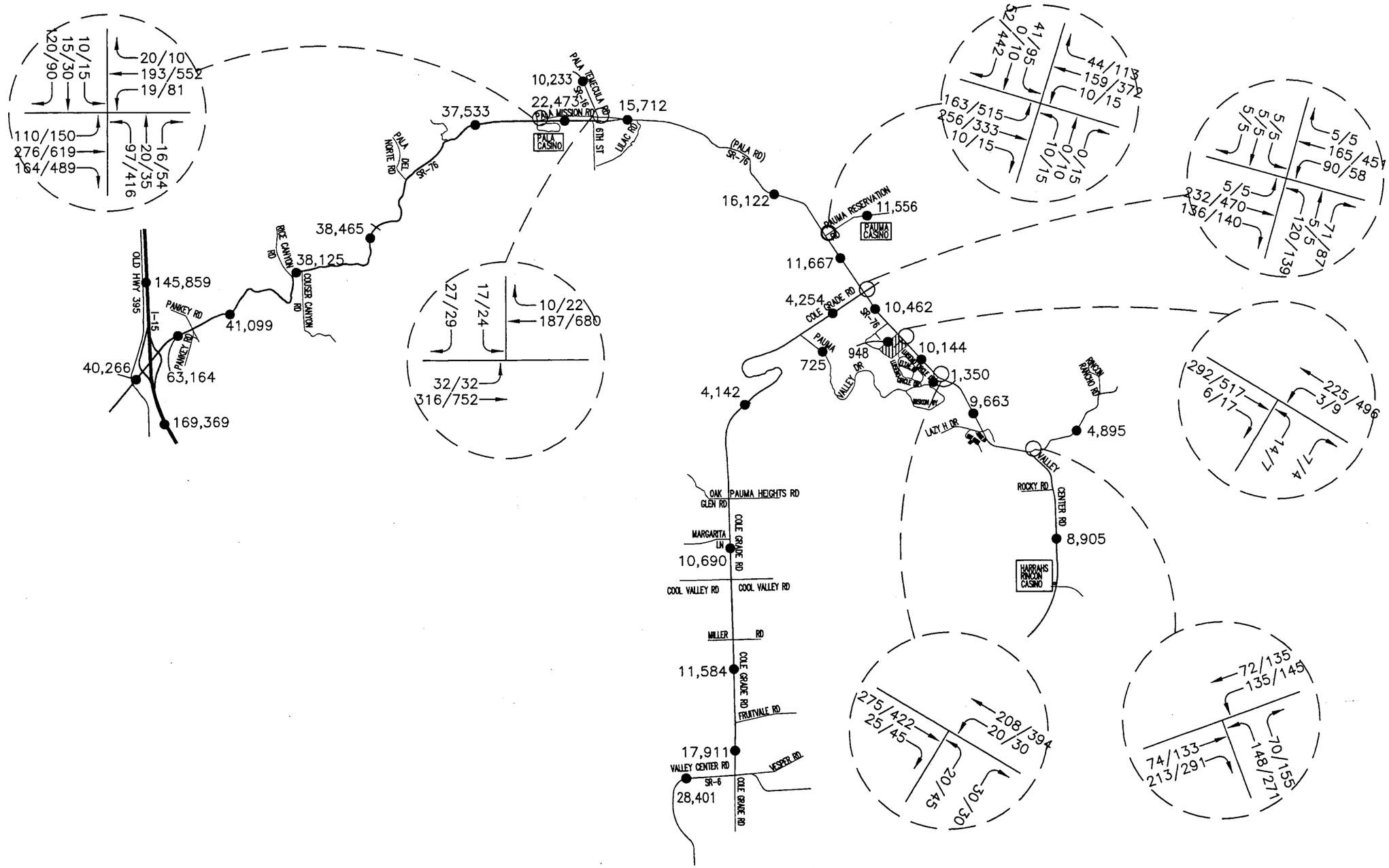
FIGURE 9
CUMULATIVE WITHOUT PROJECT



LEGEND

▨ – PROJECT SITE

● Z,ZZZ – AVERAGE DAILY TRAFFIC

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FIGURE 10
CUMULATIVE WITH PROJECT

Table 10 - Cumulative Roadway Segment Level of Service Summary

Freeway Segments

Roadway Segment	Capacity	Exiting (A)			Cum w/o Project (B)			Cum +Project (C)			Cum. Contribution[1] (C) – (A)			Proj. Contribution[2] (C) – (B)		
		ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	ΔADT	ΔV/C	Cum. Impact[3]	ΔADT	ΔV/C	Proj. Impact[4]
Interstate 15																
East Mission Rd to SR-76	(5)	133,125	0.782	C	145,848	0.856	D	145,859	0.856	D	12,734	0.074	No	11	0.000	No
SR-76 to Old Hwy 395	(5)	127,925	0.743	C	169,368	0.983	**E**	**169,368**	**0.983**	**E**	**41,443**	**0.240**	**Yes**	**0**	**0.000**	**No**

Non Freeway Segments

Roadway Segment	Capacity	Existing (A)		Cum w/o Project (B)		Cum + Project (C)		Cum. Contribution[1] (C) – (A)		Proj. Contribution[2] (C) – (B)		
		ADT	LOS	ADT	LOS	ADT	LOS	Δ ADT	Cum. Impact?[3]	Δ ADT	% Δ ADT	Proj. Impact[4]
State Route 76 (Pala Road)												
West of Old Hwy 395	10,900	**24,800**	**F**	**37,737**	**F**	**37,748**	**F**	**12,948**	**Yes**	**11**	**0.08%**	No
Old Hwy 395 to I-15 SB Ramps	10,900	**26,675**	**F**	**40,255**	**F**	**40,266**	**F**	**13,591**	**Yes**	**11**	**0.08%**	No
I-15 NB Ramps to Pankey Rd	16,200	14,025	<D	**63,142**	**F**	**63,164**	**F**	**49,139**	**Yes**	**22**	**0.04%**	No
Pankey Rd to Rice Canyon Rd	16,200	15,125	<D	**41,067**	**F**	**41,099**	**F**	**25,974**	**Yes**	**32**	**0.12%**	No
Rice Canyon Rd to Couser Cyn Rd	16,200	15,125	<D	**38,089**	**F**	**38,125**	**F**	**23,000**	**Yes**	**36**	**0.16%**	No
Couser Cyn Rd to Pala Del Norte	16,200	15,400	<D	**38,429**	**F**	**38,465**	**F**	**23,065**	**Yes**	**36**	**0.16%**	No
Pala Del Norte to Pala-Mission W	16,200	14,525	<D	**37,497**	**F**	**37,533**	**F**	**23,008**	**Yes**	**36**	**0.16%**	No
Pala-Mission W to Pala-Temecula	16,200	14,525	<D	**22,433**	**E**	**22,473**	**E**	**7,948**	**Yes**	**40**	**0.50%**	No
Pala Temecula to Lilac Rd	16,200	8,000	<D	15,669	<D	15,712	<D	7,712	No	43	0.56%	No
Lilac Rd to Pauma Reservation Rd	16,200	8,425	<D	16,075	<D	16,122	<D	7,697	No	47	0.61%	No
Pauma Reservation Rd to Cole Grade Rd	16,200	9,325	<D	11,599	<D	11,667	<D	2,342	No	68	2.90%	No
Cole Grade Rd to Club Estates Access	16,200	8,775	<D	10,221	<D	10,462	<D	1,687	No	241	14.29%	No
Club Estates Access to Pauma Valley Dr	16,200	8,775	<D	10,025	<D	10,144	<D	1,369	No	119	8.69%	No
Pauma Valley Dr to Valley Center Rd	16,200	8,375	<D	9,566	<D	9,663	<D	1,288	No	97	7.53%	No
Valley Center Rd to Rincon Rancho Rd	16,200	4,300	<D	4,870	<D	4,895	<D	595	No	25	4.20%	No
Valley Center Road												
SR-76 to Rocky Road	10,900	8,000	D	8,847	D	8,905	D	905	No	58	6.41%	No
West of Cole Grade Road	16,200	**25,000**	**F**	**28,307**	**F**	**28,401**	**F**	**2,501**	**Yes**	**94**	**3.76%**	**Yes**
Cole Grade Road												
SR-76 to Pauma Valley Drive	10,900	2,600	B	4,081	B	4,254	C	1,654	No	173	10.56%	No
Pauma Valley Dr to Pauma Heights Rd	10,900	2,600	B	4,012	B	4,142	C	1,542	No	130	8.43%	No
Margarita Rd to Cool Valley Rd	10,900	8,950	D	10,571	D	10,690	D	1,740	No	119	6.84%	No
Cool Valley Rd to Via Valencia	10,900	9,875	D	**11,483**	**E**	**11,584**	**E**	**1,709**	**Yes**	**101**	**5.91%**	**Yes**
Via Valencia to Fruitvale Rd	10,900	9,875	D	**11,483**	**E**	**11,584**	**E**	**1,709**	**Yes**	**101**	**5.91%**	**Yes**
Fruitvale Rd to Valley Center Rd	13,500	**15,975**	**E**	**17,813**	**E**	**17,911**	**E**	**1,936**	**Yes**	**98**	**5.06%**	**Yes**
Club Estates Access [6]												
South of SR-76	1,500	N/A		576	<C	948	<C	948	No	372	39.24%	No

ADT = Average Daily Traffic; LOS = Level of Service; N/A = Not Applicable; Cum = Cumulative; Δ = Change In; % Δ ADT = % of Cumulative ADT associated with the proposed project ,
< D = Operates at LOS D or better, < C = Operates at LOS C or better

(1) Change in existing conditions due to the cumulative projects including the proposed project (i.e. the difference between Cum w/project and existing)

(2) The incremental change in conditions associated with the proposed project (i.e. the difference between Cum w/ project and Cum w/o project conditions)

(3) Cumulative Impacts are those impacts associated with the addition of all cumulative approved/pending projects including the proposed project

(4) Project Impacts assess whether the project traffic itself is a cumulatively considerable impact according to the "Cumulatively Considerable Impact" criteria identified on pages 20 and 21

(5) The levels of service for Interstate 15 were determined based on the Caltrans District 11 procedures. See Appendix E calculation worksheets.

(6) Levels of service are not typically applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. The capacity shown here is the recommended upper limit to maintain LOS C or better

- **Valley Center Road west of Cole Grade Road** – operates at LOS F under cumulative conditions with or without the proposed project, thus there is a significant impact on this segment of Valley Center Road. The cumulative projects add 2,501 ADT to this segment of Valley Center Road. The proposed Club Estates project accounts for 94 ADT, which is 3.8% of the total cumulative traffic, added to this segment of Valley Center Road. It should be noted that as previously discussed in Section II, the County of San Diego has a planned and budgeted Capital Improvement Project (CIP) that is currently under construction to improve Valley Center Road to four-lane Major Road standards between Banbury Drive and Cole Grade Road. When these improvements are completed, this section of Valley Center Road will have the capacity equivalent to a Major Road, 33,400 daily vehicles at LOS D. The Valley Center CIP is expected to be completed by December 2009, which is prior to the projected cumulative condition analyzed. As a Major Road, the segment of Valley Center Road west of Cole Grade Road will operate at an acceptable LOS C under cumulative plus project conditions and the cumulative impact would be eliminated.

- **Cole Grade Road from Cool Valley Road to Valley Center Road**– operates at LOS E under cumulative conditions with or without the proposed project, thus there is a significant impact on these segments of Cole Grade Road. The cumulative projects add between 1,709 ADT to 1,936 ADT to these segments of Cole Grade Road. The proposed Club Estates project accounts for a range of 98 ADT to 101 ADT, which is between 5.1%% to 5.9% of the total cumulative traffic added to these segments of Cole Grade Road.

All other key roadway segments continue to operate at an acceptable LOS D or better under cumulative with project conditions.

CUMULATIVE WITH PROJECT INTERSECTION OPERATION

Cumulative intersection operation is summarized on Table 11. As shown on Table 11, the following deficiencies are reported:

Pala Road (SR-76)/Pala Temecula Road - (LOS F in the PM Peak) - With the addition of cumulative projects, this intersection fails as a stop controlled intersection. The project does not generate more than five (5) peak hour trips in a single critical movement (right turns excluded) and is not considered to be cumulatively significant. However, the project does contribute to the need for improvements and will participate in intersection betterments in accordance with Board Policy J25.

Pala Road (SR-76)/Pauma Reservation Road - (LOS F in the PM Peak) - With the addition of cumulative projects, this intersection fails as a stop controlled intersection. The project does not generate more than five (5) peak hour trips in a single critical movement and is not considered to be cumulatively significant. However, the project does contribute to the need for improvements and will participate in intersection betterments in accordance with Board Policy J25.

Pala Road (SR-76)/Cole Grade Road - (LOS F in the PM Peak) - With the addition of cumulative projects, this intersection fails as a stop controlled intersection. The project does not generate more than five (5) peak hour trips in a single critical movement and is not considered to be cumulatively significant. However, the project does contribute to the need for improvements and will participate in intersection betterments in accordance with Board Policy J25.

Pala Road (SR-76)/Valley Center Road - (LOS F in the PM Peak) - With the addition of cumulative projects, this intersection fails as a stop controlled intersection. The project does not generate more than five (5) peak hour trips in a single critical movement and is not considered to be cumulatively significant. However, the project does contribute to the need for improvements and will participate in intersection betterments in accordance with Board Policy J25.

Table 11 - Cumulative Intersection Level of Service Summary

Intersections	Traffic Control	Crit. Movement	Existing (A)		Cuml (No Proj) (B)		Cuml+Project (C)		Cuml. Contribution (C)-(A)		Project Contribution (C)-(B)		
			Delay sec/veh	LOS	Delay sec/veh	LOS	Delay sec/veh	LOS	Δ Delay	Cuml. Impact?	Max Crit Mvmt	Δ Delay	Cuml. Signif?
AM PEAK HOUR													
Pala Rd (SR76) (E-W)/ Pala Mission Rd (N-S)	Signalized	Int.	14.8	B	16.3	B	16.3	B	1.5	No	2	0.0	No
Pala Rd (SR76) (E-W)/ Pala Temecula Rd (N-S)	OWSC	SB	10.2	B	11.5	B	11.5	B	1.3	No	2	0.0	No
Pala Rd (SR76) (N-S) / Pauma Reservation Rd (E-W)	TWSC	EB	13.4	B	21.7	C	21.8	C	8.4	No	2	0.1	No
		WB	12.0	B	16.8	C	16.9	C	4.9			0.1	
Pala Rd (SR76) (E-W)/ Cole Grade Road (N-S)	TWSC	NB	18.5	C	29.6	D	30.2	D	11.7	No	10	0.6	No
		SB	14.6	B	16.5	C	16.6	C	2.0			0.1	
Pala Rd (SR76) (E-W)/ Pauma Valley Dr (N-S)	OWSC	NB	11.3	B	12.1	B	12.3	B	1.0	No	7	0.2	No
Pala Rd (SR76) (E-W)/ Valley Center Rd (N-S)	OWSC	WBL	8.2	A	8.3	A	8.4	A	0.2	No	2	0.1	No
		NB	14.6	B	16.6	C	16.8	C	2.2			0.2	
PM PEAK HOUR													
Pala Rd (SR76) (E-W)/ Pala Mission Rd (N-S)	Signalized	Int.	18.0	B	48.4	D	48.6	D	30.6	No	3	0.2	No
Pala Rd (SR76) (E-W)/ Pala Temecula Rd (N-S)	OWSC	**SB**	11.7	B	39.4	**E**	39.7	**E**	28.0	**Yes**	**3**	0.3	No
Pala Rd (SR76) (N-S) / Pauma Reservation Rd (E-W)	TWSC	**EB**	18.9	C	*	**F**	*	**F**	*	**Yes**	**3**	*	No
		WB	21.1	C	*	**F**	*	**F**	*			*	
Pala Rd (SR76) (E-W)/ Cole Grade Road (N-S)	TWSC	**NB**	**53.4**	**F**	*	**F**	*	**F**	*	**Yes**	**5**	*	No
		SB	19.0	C	33.8	D	36.2	**E**	17.2			2.4	
Pala Rd (SR76) (E-W)/ Pauma Valley Dr (N-S)	OWSC	NB	17.0	C	21.6	C	22.0	C	5.0	No	9	0.4	No
Pala Rd (SR76) (E-W)/ Valley Center Rd (N-S)	OWSC	WBL	8.6	A	8.9	A	9.0	A	0.4	**Yes**	**4**	0.1	No
		NB	27.6	D	**67.0**	**F**	**71.7**	**F**	**44.1**			4.7	

Delay is measured in seconds per vehicle; Δ Delay=change in delay; LOS=level of service; *=Delay exceeds maximum values,
Max Crit Mvmt=Maximum Critical Movement (project only) - right turns are not critical movements, Significance based on County thresholds; Delay and LOS calculated using Synchro 6
OWSC = One-Way Stop-Controlled; TWSC = Two-Way Stop-Controlled; Int = Intersection; NB = Northbound Approach; SB = Southbound Approach; EB = Eastbound Approach; WB = Westbound Approach;
WBL = Westbound Left, E-W = East-West Street; N-S = North-South Street

SECTION V - PROJECT ACCESS & ON-SITE CIRCULATION

PROJECT ACCESS DESIGN

The project proposes to take access from State Route 76 via one access point, Street "A". Street "A" will be located at the northwesterly boundary of the project site. An existing driveway access onto SR-76 (Pala Road) is located in close proximity to the proposed Street "A", however, with the development of the proposed Club Estates project the existing driveway will be abandoned and the existing (1 dwelling unit) and proposed (30 dwelling units) development traffic will be re-routed to Street "A".

A secondary access (for emergency and recreational purposes only) will be provided to State Route 76 at Pauma Valley Drive via Luiseno Circle Drive. The Pauma Valley Country Club has granted an easement to the project applicant for its use and the use of its future homeowners. A security gate will be operated by the Pauma Valley Community Services District. The road from the project boundary to Luiseno Circle will be operated and maintained either by the project's homeowners association or by The Pauma Valley Roadway Association, which operates and maintains many of the private roads already constructed within The Club's boundaries.

Street "A" will be designed to provide a graded width of 28 feet and an improved width of 24 feet, with one (1) lane of ingress and one (1) lane of egress. As part of the project, the developer proposes to improve SR-76 along the project frontage to provide a 365-foot right turn deceleration lane from eastbound SR-76 to southbound Street "A" and to provide a 245-foot westbound left turn lane from westbound SR-76 onto southbound Street "A". A copy of the proposed intersection channelization and pavement-widening concept for SR-76 (Pala Road) along the project frontage is provided under separate cover.

It should be noted that the design of the project and the proposed channelization concept for SR-76 (Pala Road) along the project frontage provides the right-of-way along SR-76 to accommodate either the current Circulation Element Classification (4-Lane Major Road) or the Proposed GP2020 roadway classification 2.1D Community Collector with Passing Lane Option). It should also be noted that the County's Bicycle Transportation Plan identifies SR-76 along the project's frontage as a Class II bikeway facility. (A copy of the County's Bicycle Master Plan for the Pala-Pauma area is provided in Appendix A.)

PROJECT ACCESS LEVEL OF SERVICE

The project access, "Street "A"", has been designed such that it could be shared by the four parcels of land (APN: 130-100-21 through 24) located on 48 acres adjoining the proposed Club Estates to the northwest. Based on current zoning, the off-site parcels (APN: 130-100-21 through 24) have the potential to be developed with single-family estate dwelling units with a minimum lot size of 1 acre which would yield a maximum of 48 dwelling units. As currently proposed, access to the off-site parcels (APN: 130-100-21 through 24) will be provided via the proposed Club Estates access off SR-76 (Street "A") and via a second access located approximately 930 feet northwesterly of Street "A". Since the development of the adjacent off-site parcels (APN: 130-100-21 through 24) could potentially impact the operation and design of the proposed Club Estates access (Street "A"), the project access analysis assumed the adjacent parcels would be developed with 48 estate dwelling units. To assess the worse case scenario, all 48 potential homes were assumed to take access via the proposed Club Estates access to SR-76 (Street "A").

The project access was evaluated under cumulative plus project plus APN: 130-100-21 through 24 assuming it was stop sign controlled on the access (northbound) approach. The results of the analysis are summarized in Table 12. As shown in Table 12, all movements at the proposed project access will operate at an acceptable LOS C or better. (The results of the access analysis are provided in Appendix G.)

Table 12 - Project Access Level of Service Summary					
Intersection	Critical Movement	Cumulative + Project + APN: 130-100-21 through 24			
		AM Peak Hour		PM Peak Hour	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
SR-76 (E-W)@ Street "A" (N-S)	WBL	0.3	A	0.7	A
	NB	13.3	B	19.7	C
sec/veh = seconds of delay per vehicle; LOS = Level of Service; E-W = East-West Street; N-S = North-South Street WBL = Westbound Left Turn Movement; NB = Northbound Approach;					

SIGHT DISTANCE

D&A evaluated the adequacy of sight distance that is available at the proposed driveway. Field investigations found that there is currently over 550 feet of sight distance in both directions from the proposed access. The design speed for the ultimate Major Road classification of SR-76 is 55 miles per hour which would requires a minimum corner sight distance of 550 feet per County standards and a minimum stopping sight distance of 500 feet per Caltrans standards. Thus, the sight distance at the proposed project access should be adequate. In conjunction with the approval of the final map for the project, the developer will provide certification signed by a registered Civil or Traffic Engineer that a minimum of 550 feet of sight distance is provided in both directions.

INTERSECTION SPACING

The County Public Roads Standards Section 6.1.C.2 requires that non-Circulation Element roads entering into a Circulation Element road have centerlines separated by at least 300 feet. Since the proposed Street "A" will be located approximately 230 feet southeasterly of an existing citrus grove road, the applicant submitted a design exception request to the County. On March 29, 2007, the County approved the Design Exception to permit an intersection spacing of approximately 230 feet between the existing citrus grove road and the proposed Street "A". A copy of the County's March 29, 2007 letter where they accepted the design exception is provided in Appendix K.

ON-SITE CIRCULATION

The project is proposing to provide one main access road off SR-76. The access road, Street "A" will connect to internal roads, Streets "B" and "C" which form a circular loop roadway network within the project site to provide access to every lot. A stub-out will be provided at the southwesterly side of Street "C" to provide access to the existing dwelling unit located along the southern project boundary. Street "A" will be designed in such a way that it can provide a shared access to SR-76 with the four adjacent parcels (APN: 130-100-21 through 24) located along the westerly side of the project.

A secondary access is proposed to be provided at the southeasterly project boundary to Luiseno Circle Drive. This access will only be utilized for emergency purposes and by the residents of the subdivision who are members of the Pauma Valley Country Club.

SECTION VI - PROJECT MITIGATION AND CONTRIBUTIONS

GENERAL

- Per the centerline ordinance, the developer may be required to make frontage improvements along SR-76 as required in the Public Works Standards (sections 3.4 & 3.5, etc.). See Appendix I for an illustration of the proposed intersection channelization and pavement-widening concept for SR-76 (Pala Road) along the project frontage.

DIRECT IMPACTS

- The proposed project does not have a significant direct impact on any of the key roadway segments or study intersections analyzed.

CUMULATIVE IMPACTS

- The proposed project will be part of a cumulative impact on the segments of State Route 76 (Pala Road) from West of Old Highway 395 to Pala-Temecula Road, Valley Center Road west of Cole Grade Road, and Cole Grade Road from Cool Valley Road to Valley Center Road.

- In September 2005, the County of San Diego adopted an "Addendum to Transportation Impact Fee Reports Adding Portion of State Route 76 & Certain Interstate 15 Ramps to TIF Fees For North Region". The addendum included improvement on State Route 76 from 2 lanes to 4 lanes between Interstate 15 and Couser Canyon Road. In addition, the addendum included various interchange/ramp modifications at the State Route 76/Interstate 15 interchange. The cumulative projects which require General Plan Amendments, however, will also require that this section of SR-76 be widened to beyond 4-lanes. The proposed project is a small portion of the cumulative impacts, so payment of the County's TIF will mitigate its share of the impacts to the segments of SR-76 between Interstate 15 and Couser Canyon Road.

- The County TIF report does not include the segments of State Route 76 between Couser Canyon Road and Pala-Temecula Road which are cumulatively impacted. However, as discussed in Section IV, the proposed project adds between 11 and 40 ADT to these segments of SR-76. As was illustrated in Figure 6, when spread out throughout the day, these daily trips assign a maximum of four (4) two-way trips to the roadway during the peak hour, which is the equivalent of approximately one (1) vehicle every 15 minutes. This will not be noticeable to the average driver, and therefore the project will not result in a cumulatively considerable impact to these segments. However, the project proposes to make a fair-share contribution towards the "intersection betterment" and signal fees in accordance with the County of San Diego Board of Supervisors Policy J-25 (a copy of County Board Policy J-25 is provided in Appendix H) towards the following intersections:

    - Pala Road (SR-76)/Pala Temecula Road - $2,650.00;
    - Pala Road (SR-76)/Pauma Reservation Road - $1,300.00;
    - Pala Road (SR-76)/Cole Grade Road - $950.00;
    - Pala Road (SR-76)/Pauma Valley Drive - $950.00; and
    - Pala Road (SR-76)/Valley Center Road - $1,050.00.

- As previously discussed in Section II, the County of San Diego has a planned and budgeted Capital Improvement Project (CIP) that is currently under construction to improve Valley Center Road to four-lane Major Road standards between Banbury Drive and Cole Grade Road. When these improvements are completed, this section of Valley Center Road will have the capacity equivalent to a Major Road, 33,400 daily vehicles at LOS D. The Valley Center CIP is expected

to be completed by December 2009, which is prior to the projected cumulative condition analyzed. As a Major Road, the segment of Valley Center Road west of Cole Grade Road will operate at an acceptable LOS C under cumulative plus project conditions and the cumulative impact would be eliminated. Further, the segment of Valley Center Road west of Cole Grade Road is included in the County's TIF program, and since the Club Estates project was included in the analysis within the County TIF report, payment of the County TIF will mitigate the project's cumulative impacts to Valley Center Road.

- The County TIF report also does not include the segment of Cole Grade Road from Cool Valley to Via Valencia which is cumulatively impacted. Therefore, to mitigate the project's share of it's cumulative impacts to this segment of Cole Grade Road it proposes to pay "intersection betterment" and signalization fees in accordance with the County of San Diego Board of Supervisors Policy J-25 (a copy of County Board Policy J-25 is provided in Appendix H) towards the following intersections:

    - Cole Grade Road/Cool Valley Road - $1,300.00, and
    - Cole Grade Road/Miller Way - $1,550.00.

- Since the segment of Cole Grade Road between Via Valencia and Valley Center Road is included in the County's TIF program, payment of the County's TIF will mitigate the project's cumulative impact to this segment of Cole Grade Road.

COUNTY TRANSPORTATION IMPACT FEE (TIF) CALCULATION

- The County Board of Supervisors adopted the Transportation Impact Fee (TIF) ordinance on April 2005. The TIF provides a mechanism for developers to mitigate their cumulative impacts by simply paying the established TIF fee for their community. As of March 2008 the TIF fee for the Pala-Pauma planning area is $7,159 per single-family dwelling unit. Thus the total TIF for the proposed 30-unit Club Estates development will be $214,770 (i.e. $7,159 per DU X 30 new DUs = $214,770). It should be noted that the actual fee is subject to change as the TIF Ordinance is updated annually and the fees are adjusted to reflect the engineering cost index.

BOARD POLICY J25 CONTRIBUTIONS

- Board Policy J25 provides the County with a mechanism for participation by private, developers, individuals, organizations or non-county public jurisdictions in the implementation of intersection betterments within the study area the following additional intersections have been identified for payment of Board Policy J25 fees:

    - Pala Road (SR-76)/ Pala Temecula Road;
    - Pala Road (SR-76)/ Pauma Reservation Road;
    - Pala Road (SR-76)/ Cole Grade Road;
    - Pala Road (SR-76)/ Pauma Valley Road; and
    - Pala Road (SR-76)/ Valley Center Road.

SECTION VII - SUMMARY OF FINDINGS AND CONCLUSIONS

- The applicant proposes to develop Club Estates, a 31-unit subdivision consisting of 30 new single-family estate dwelling units and one (1) existing single-family estate home. The proposed project is located on 48 acres on the south side of State Route 76 (Pala Road) between Cole Grade Road and Pauma Valley Drive in the Pauma Valley area of San Diego County. The project proposes to provide one access off State Route 76.

- The proposed project is estimated to generate a total of 360 new average daily trips, 29 new morning peak hour trips, and 36 new afternoon peak hour trips.

- The proposed project does not have a significant direct impact on any of the key roadway segments or intersections analyzed.

- The applicant proposes to comply with the County's Transportation Impact Fee (TIF) ordinance to mitigate the project's potential cumulative impacts in the County of San Diego.

- The proposed project does not have a significant direct impact on any of the traffic infrastructure (roadway segments or intersections) within the study area.

- The proposed project, when considered with other projects in process or known to be in process would be part of a cumulatively considerable impact on the segments of Valley Center Road west of Cole Grade Road and Cole Grade Road between Cool Valley Road and Valley Center Road. The proposed project will mitigate for those impacts as summarized in Section VI.

- See Section VI for a summary of the recommended mitigation measures and contributions.

- The proposed project access and internal circulation will adequately accommodate project traffic.

- In conjunction with the approval of the final map for the project, the developer will provide certification signed by a registered Civil or Traffic Engineer that a minimum of 550 feet of sight distance is provided in both directions.

- It should be noted that the design of the project and the proposed channelization concept for SR-76 (Pala Road) along the project frontage provides the right-of-way along SR-76 to accommodate either the current Circulation Element Classification (4-Lane Major Road) or the Proposed GP2020 roadway classification 2.1D Community Collector with Passing Lane Option).